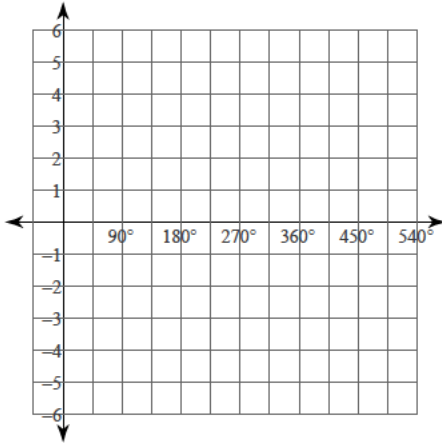


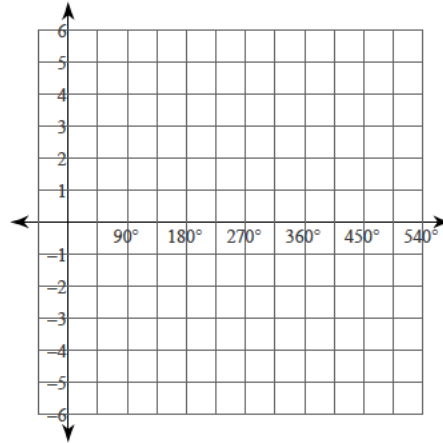
Graphing trigonometric functions

Graph sine and cosine functions

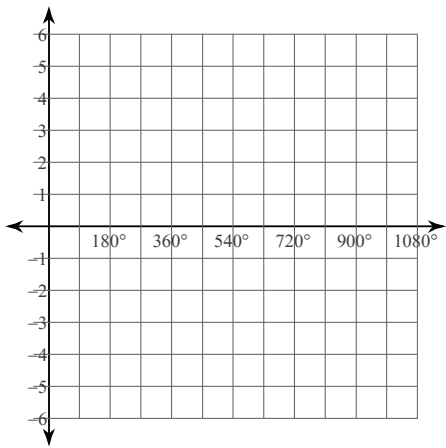
1) $y = -2 + 2\cos \theta$



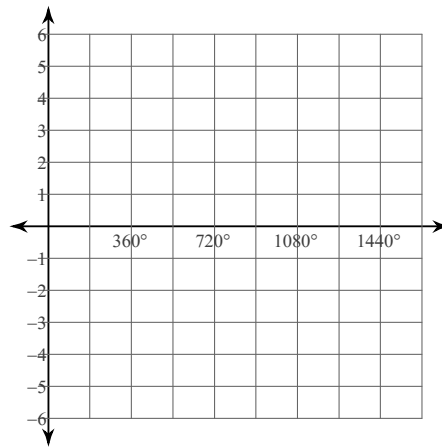
2) $y = 2 + 2\sin(\theta - 135)$



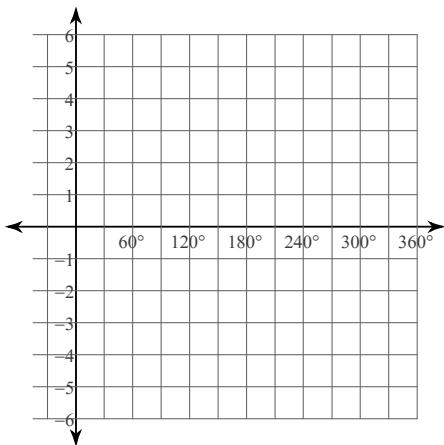
$$3) y = 2\cos\left(\frac{\theta}{2} + 45\right) - 2$$



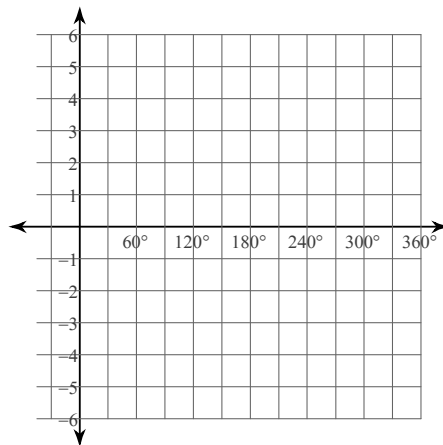
$$4) y = 3\sin\left(\frac{\theta}{3} - 150\right) + 1$$



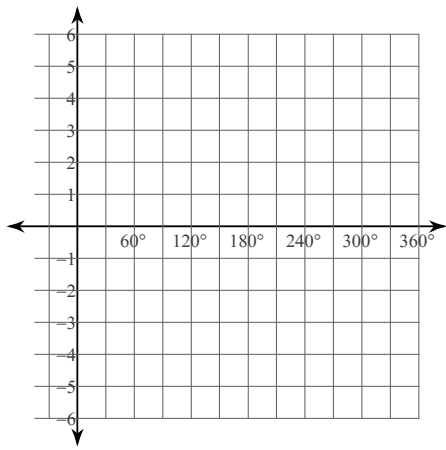
$$5) y = 3\cos(4\theta - 60) - 1$$



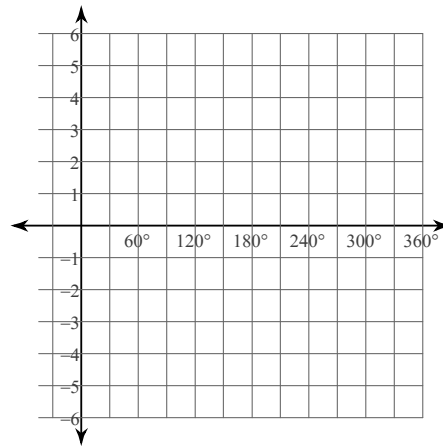
$$6) y = -1 + 2\cos 2\theta$$



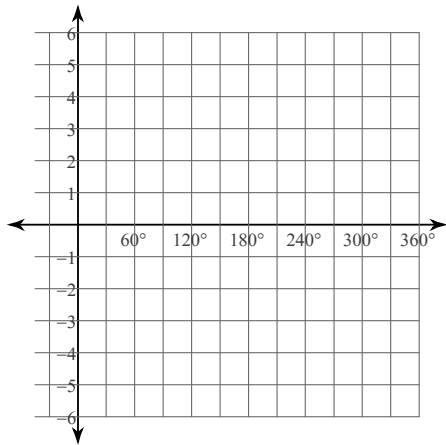
$$7) y = -2 + \frac{1}{2} \cos(2\theta - 45)$$



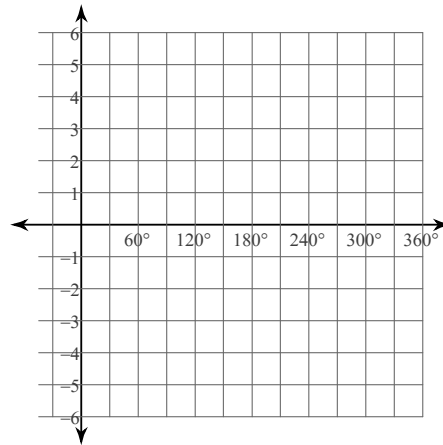
$$8) y = 2 \sin(4\theta + 135) + 2$$



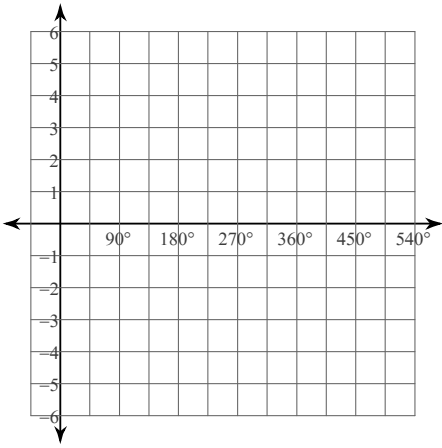
$$9) y = 4 \cos(2\theta + 90) + 2$$



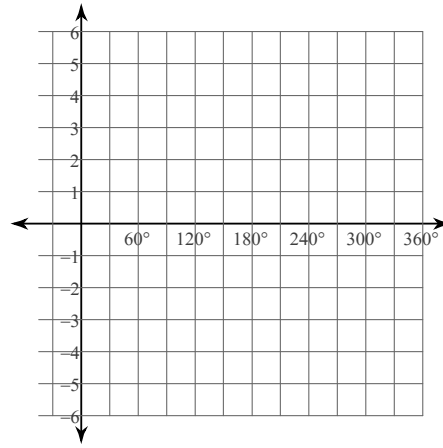
$$10) y = 2 \sin(2\theta - 120) + 1$$



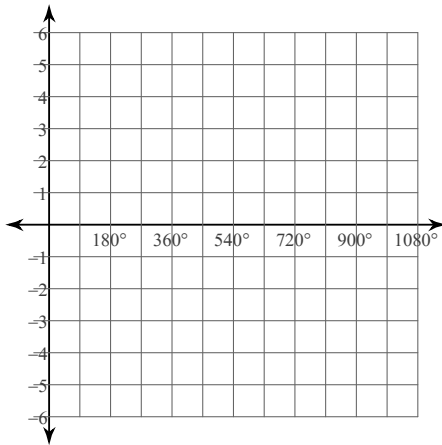
11) $y = \sin \theta - 2$



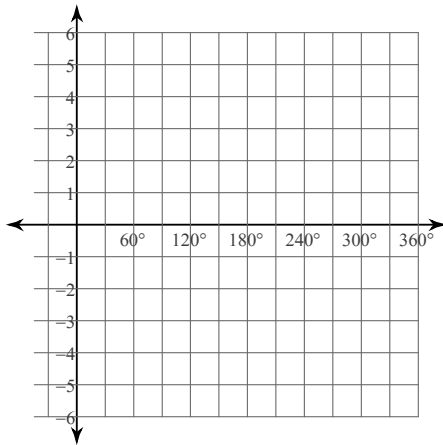
12) $y = 4\sin(2\theta + 60) + 1$



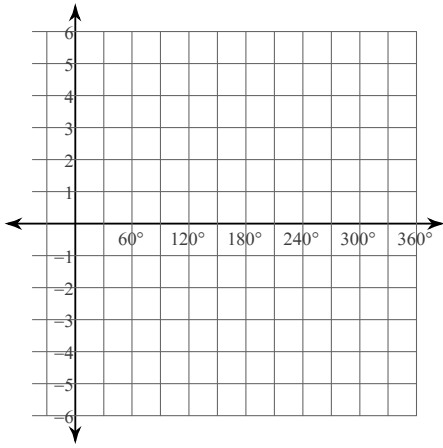
13) $y = \frac{1}{2}\sin\left(\frac{\theta}{2} + 90\right)$



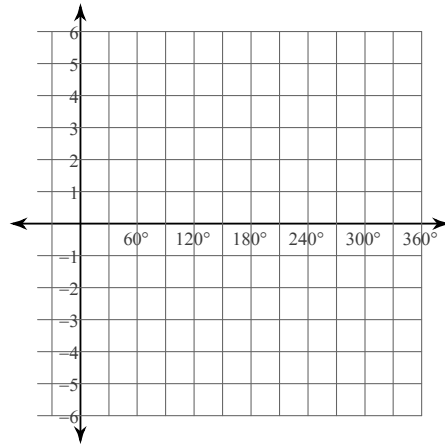
14) $y = \frac{1}{2}\cos(3\theta - 45)$



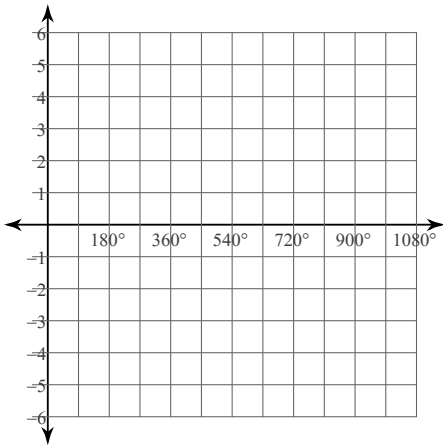
15) $y = \cos(3\theta + 30)$



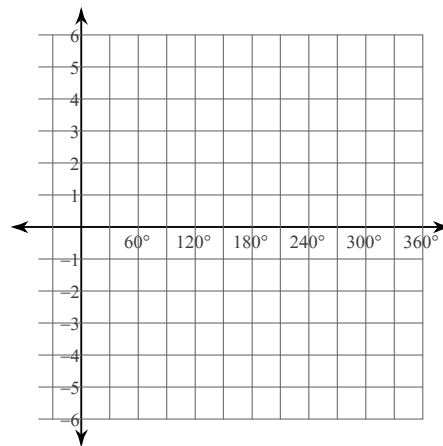
16) $y = 2\cos(4\theta + 90) - 2$



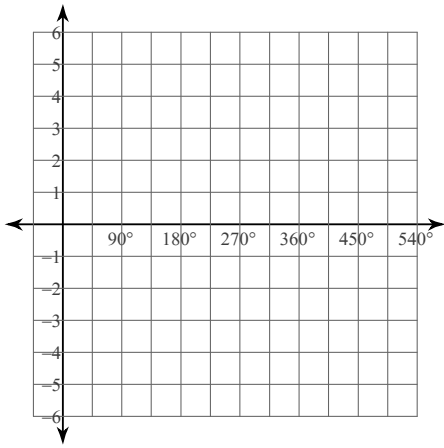
17) $y = 4\sin\left(\frac{\theta}{2} + 150\right) - 2$



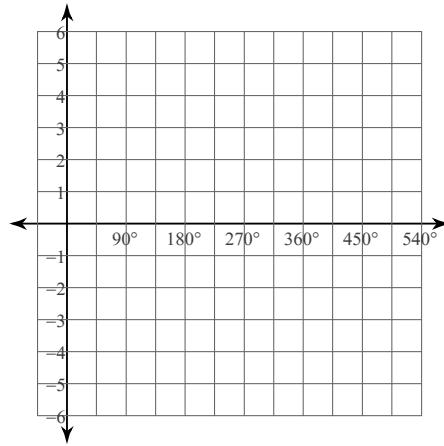
18) $y = 3\sin(2\theta - 30) + 2$



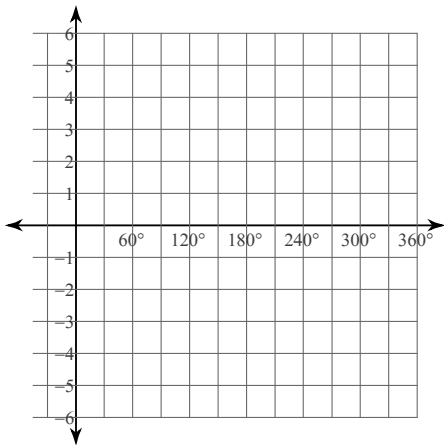
19) $y = 2 + \frac{1}{2}\cos(\theta + 150)$



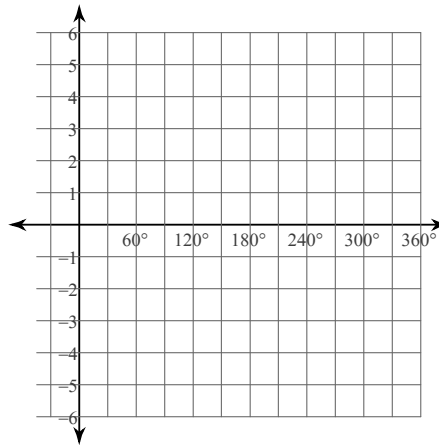
20) $y = \cos \theta + 2$



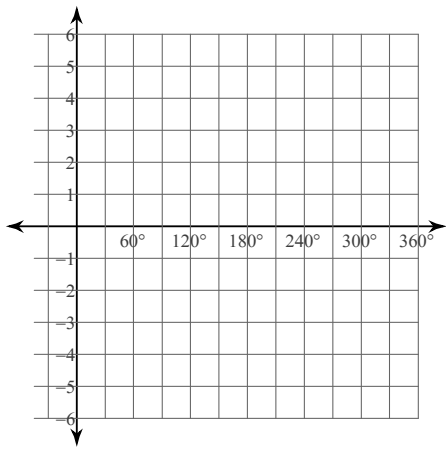
21) $y = \frac{1}{2}\cos(2\theta - 330) + 2$



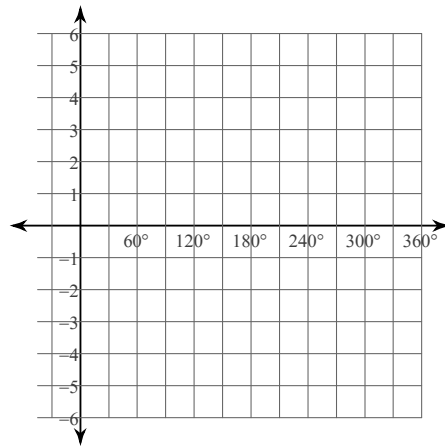
22) $y = 3\sin(4\theta - 90) - 2$



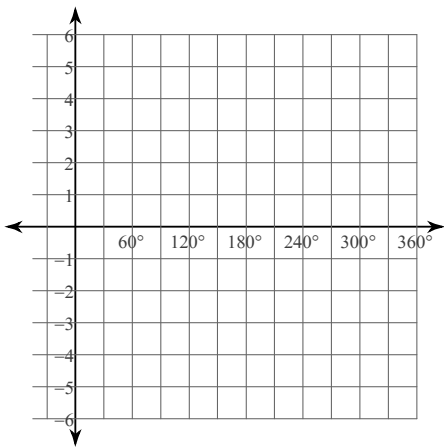
$$23) y = \frac{1}{2} \sin(3\theta - 90) + 1$$



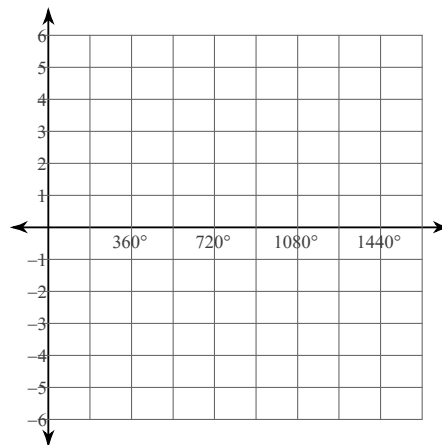
$$24) y = 4\cos(4\theta + 45) - 2$$



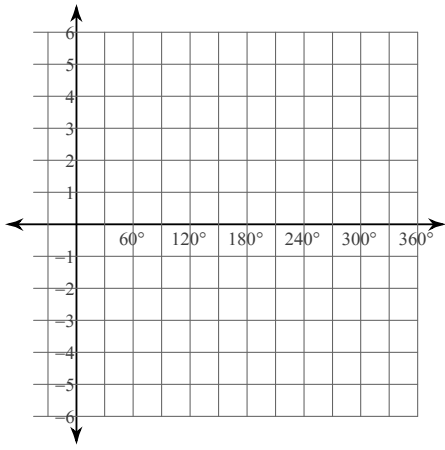
$$25) y = -1 + 4\cos(3\theta + 90)$$



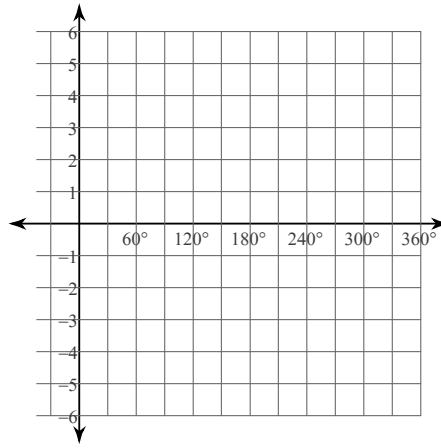
$$26) y = 2\cos\left(\frac{\theta}{3} + 150\right) + 2$$



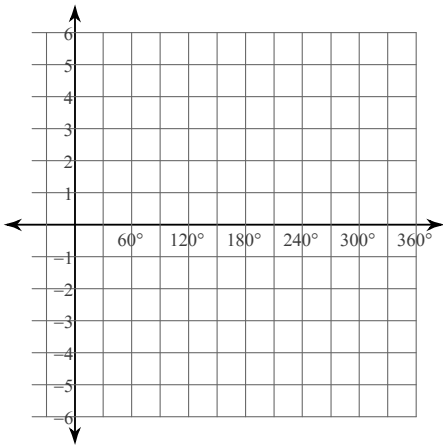
$$27) y = -2 + \frac{1}{2} \sin(2\theta + 270)$$



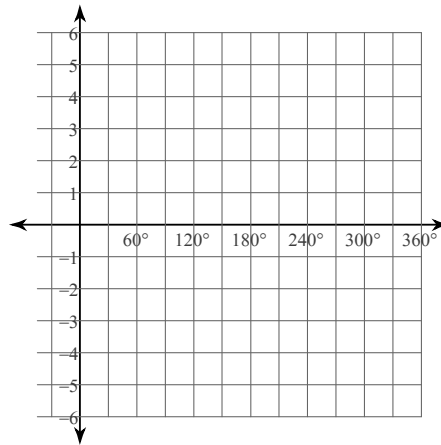
$$28) y = 1 + 3 \sin(4\theta + 45)$$



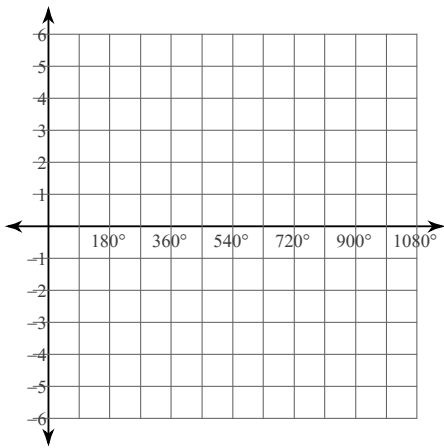
$$29) y = 3 \cos(2\theta + 150) + 2$$



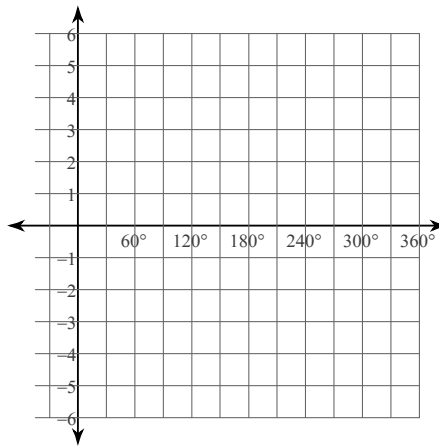
$$30) y = \sin 3\theta + 1$$



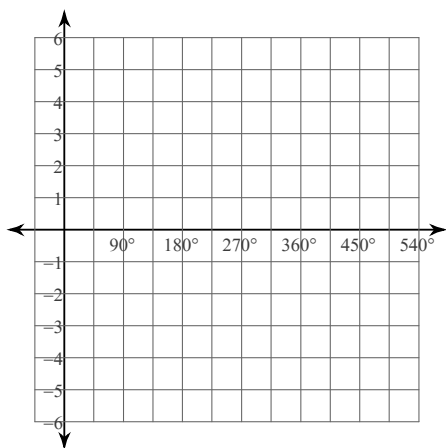
$$31) y = -1 + 4\sin\left(\frac{\theta}{2} + 150\right)$$



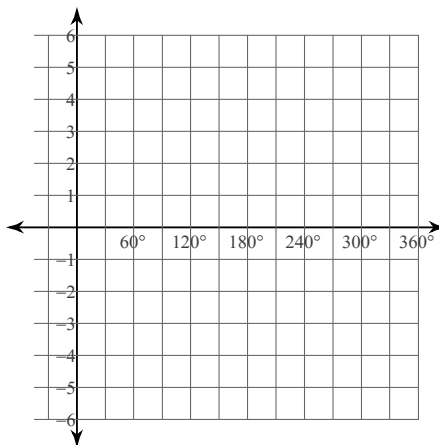
$$32) y = 4\sin 2\theta + 2$$



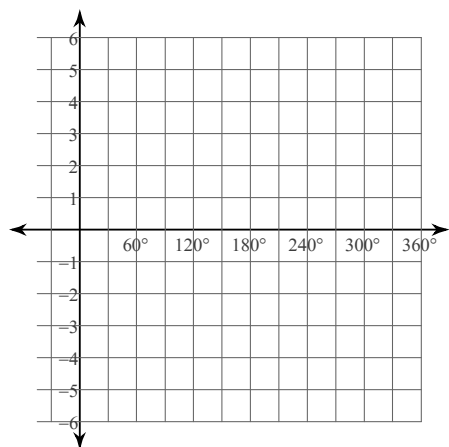
$$33) y = 4\sin \theta + 1$$



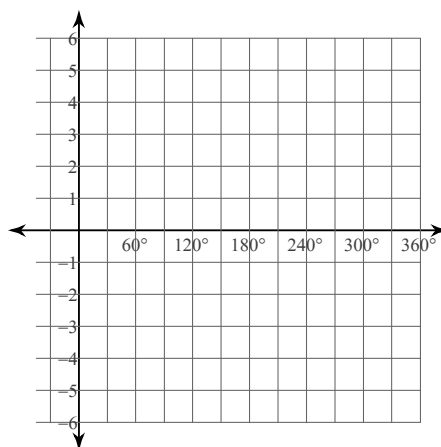
$$34) y = -2 + \frac{1}{2}\sin(2\theta + 150)$$



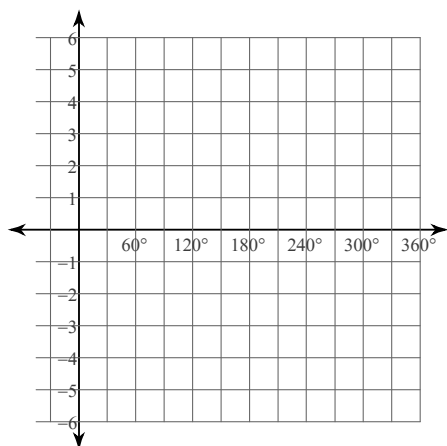
35) $y = 1 + 3\sin(2\theta + 30)$



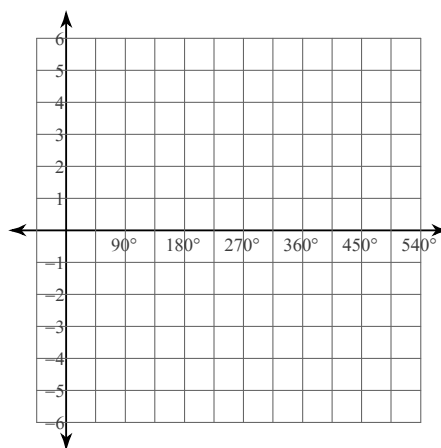
36) $y = -1 + \frac{1}{2}\sin(2\theta - 30)$



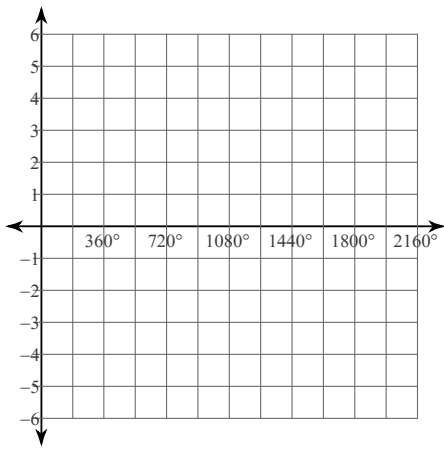
37) $y = 4\cos(2\theta - 315) - 2$



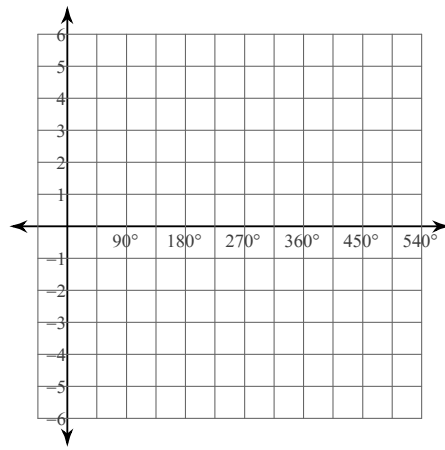
38) $y = \frac{1}{2}\sin(\theta - 30) + 2$



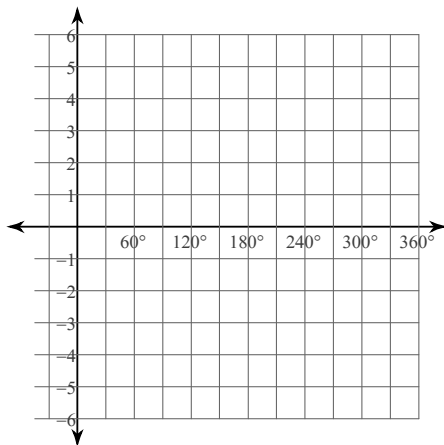
$$39) y = 2\sin\left(\frac{\theta}{4} + 315\right) + 2$$



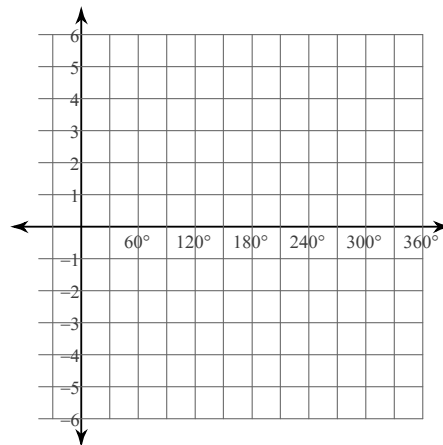
$$40) y = \frac{1}{2}\cos(\theta + 330) - 2$$



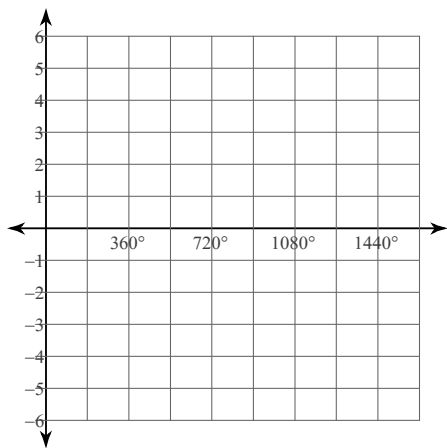
$$41) y = -1 + 4\cos(4\theta + 90)$$



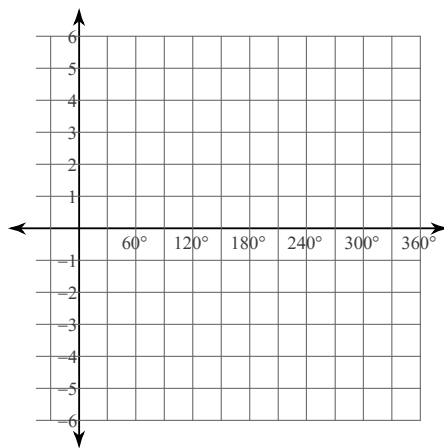
$$42) y = 3\sin(2\theta - 330) + 2$$



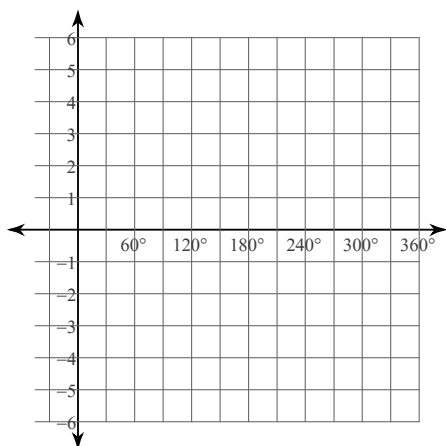
$$43) y = \frac{1}{2} \sin \left(\frac{\theta}{3} + 225 \right) - 1$$



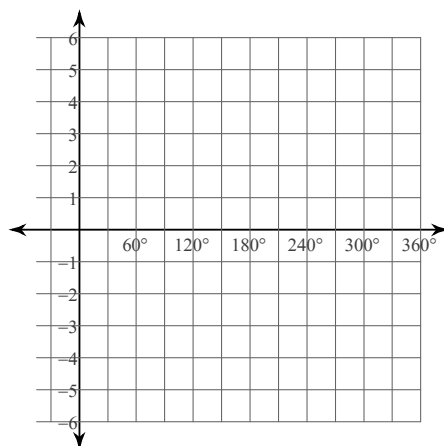
$$44) y = -2 + \frac{1}{2} \cos (4\theta + 45)$$



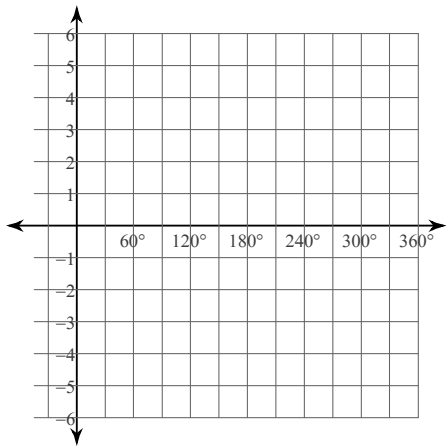
$$45) y = 3 \cos (3\theta + 120) + 2$$



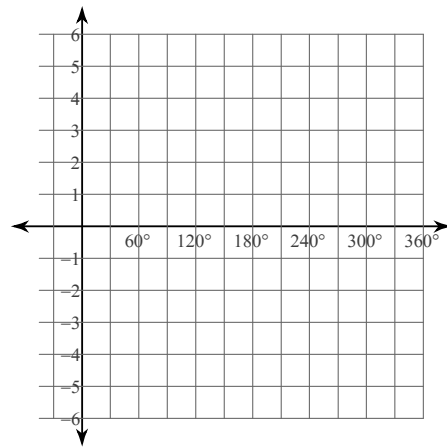
$$46) y = 4 \cos (2\theta - 225) - 1$$



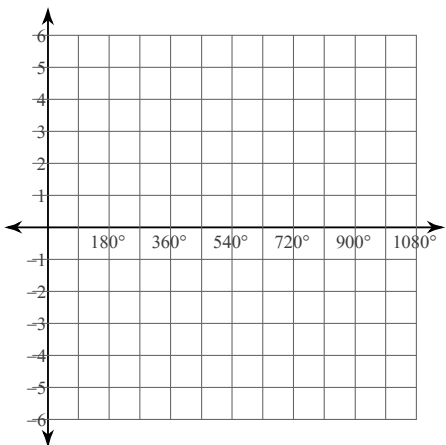
47) $y = 2\sin(2\theta + 30) - 1$



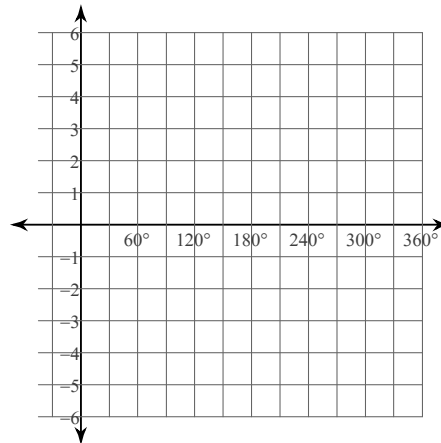
48) $y = -2 + \frac{1}{2}\cos(3\theta + 120)$



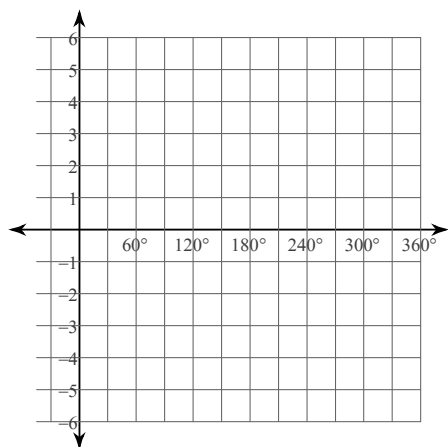
49) $y = 3\cos\left(\frac{\theta}{2} - 60\right) + 1$



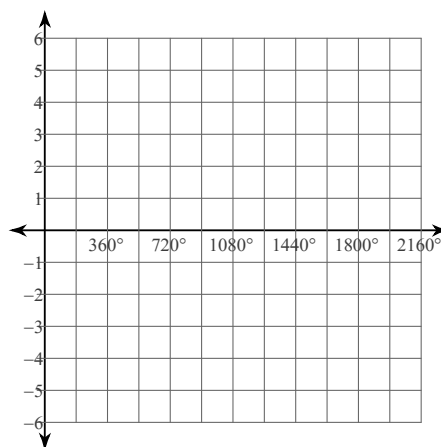
50) $y = -1 + 3\sin(3\theta - 90)$



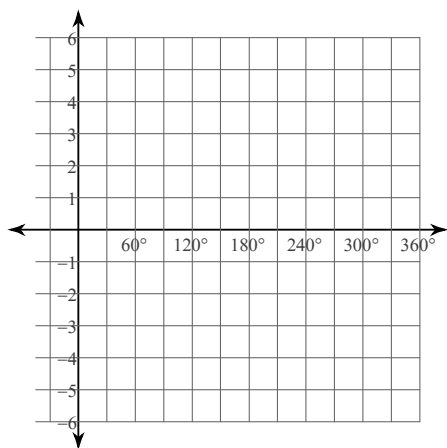
$$51) y = -1 + 4\sin(3\theta - 30)$$



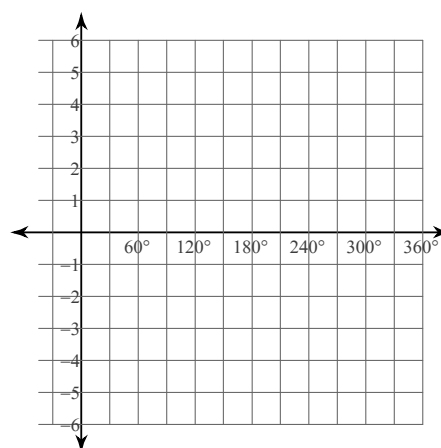
$$52) y = 1 + 2\cos\left(\frac{\theta}{4} + 150\right)$$



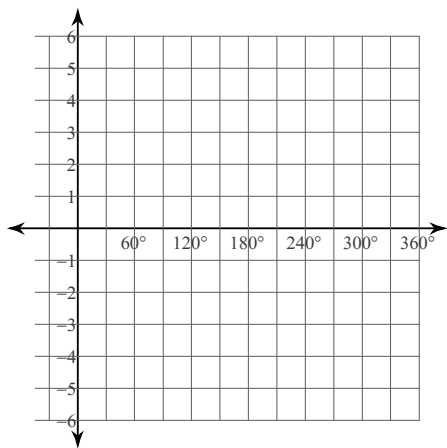
$$53) y = -2 + 3\cos(4\theta + 45)$$



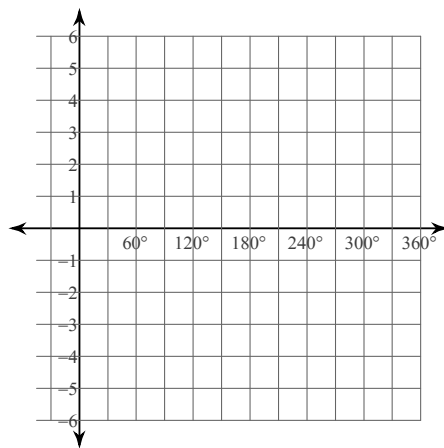
$$54) y = \frac{1}{2}\sin(4\theta - 90) - 1$$



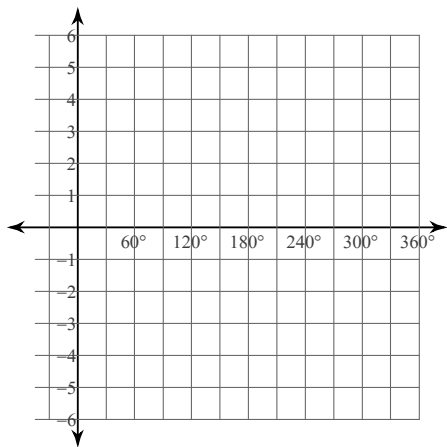
$$55) y = \frac{1}{2} \sin(2\theta + 135) + 2$$



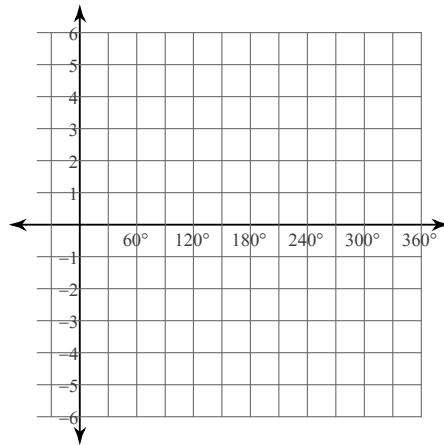
$$56) y = \frac{1}{2} \cos(4\theta - 90) - 1$$



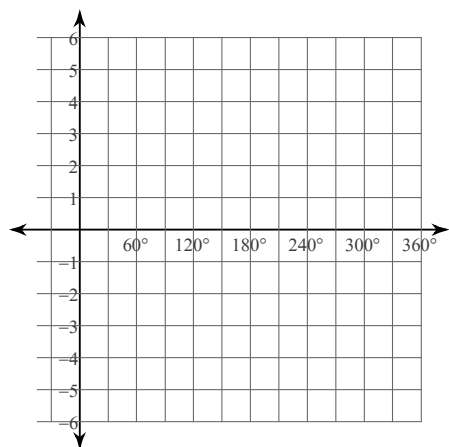
$$57) y = \frac{1}{2} \sin(4\theta - 60) + 2$$



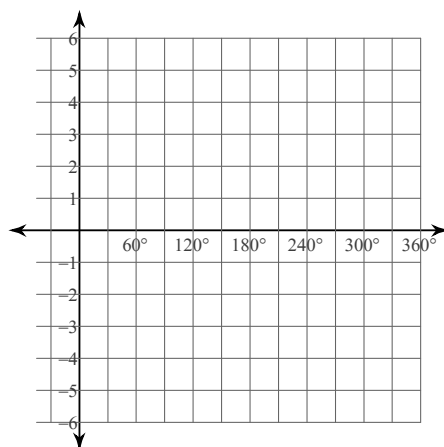
$$58) y = 2 \cos(4\theta + 135)$$



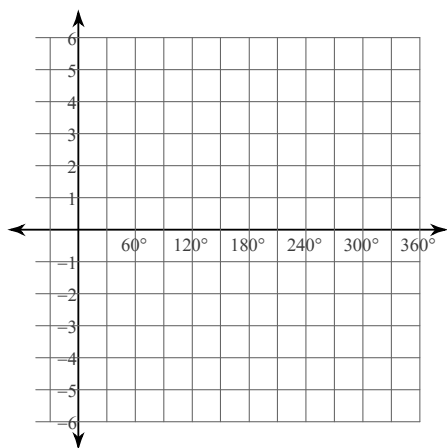
59) $y = 2\sin(2\theta + 225) - 2$



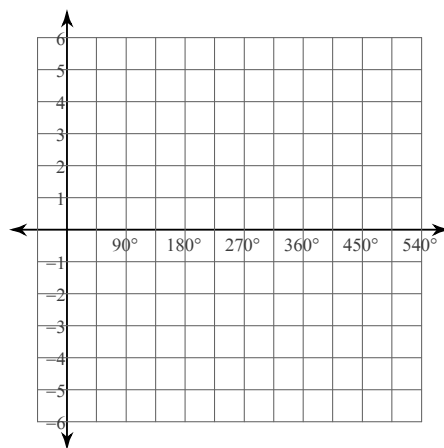
60) $y = \frac{1}{2}\cos(3\theta + 150) + 1$



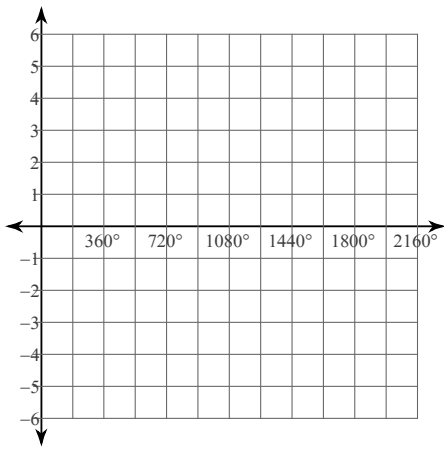
61) $y = -1 + \cos(4\theta + 120)$



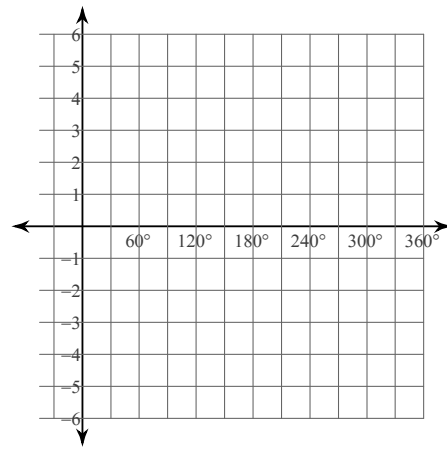
62) $y = 3\cos\theta - 2$



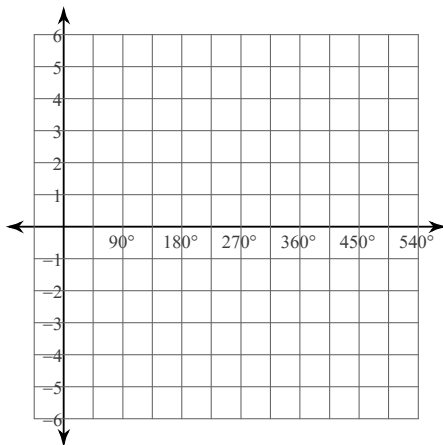
$$63) y = 3\sin\left(\frac{\theta}{4} + 60\right) - 1$$



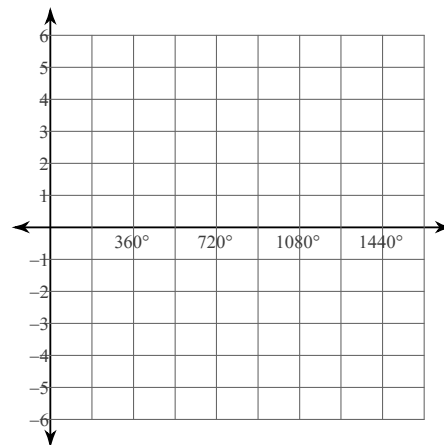
$$64) y = \frac{1}{2}\cos(4\theta - 60) + 1$$



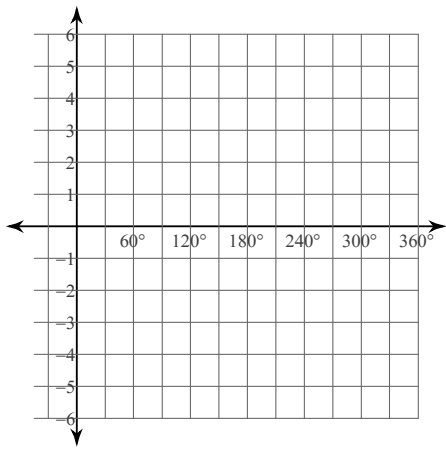
$$65) y = 4\sin(\theta - 300) - 1$$



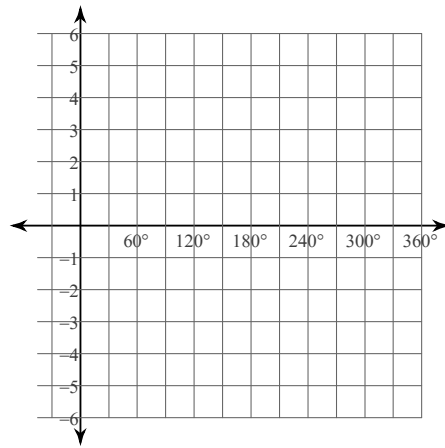
$$66) y = 2\cos\left(\frac{\theta}{3} + 90\right) - 2$$



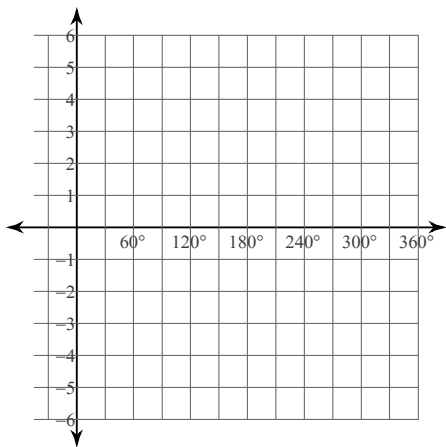
$$67) y = \frac{1}{2} \sin(4\theta + 60) - 1$$



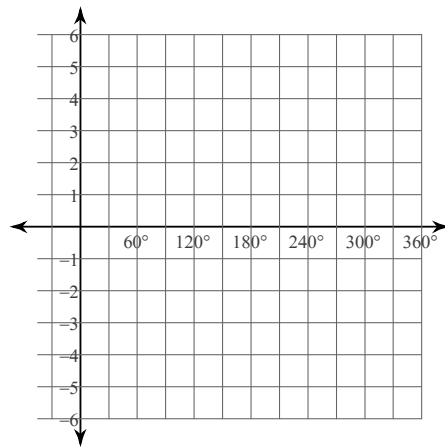
$$68) y = 4 \cos(4\theta + 120) - 2$$



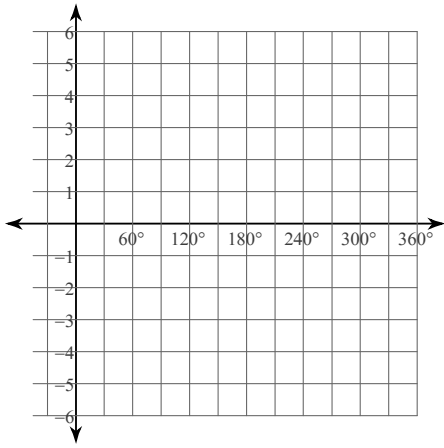
$$69) y = \frac{1}{2} \sin(2\theta - 30) + 2$$



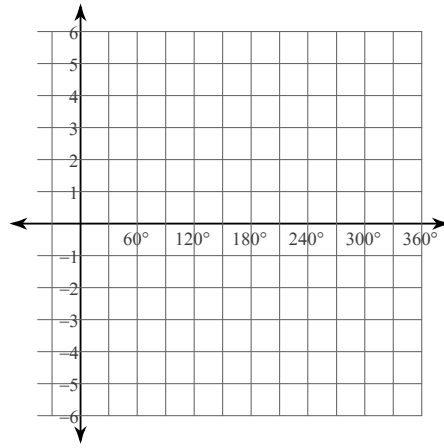
$$70) y = 3 \cos(4\theta + 150) - 2$$



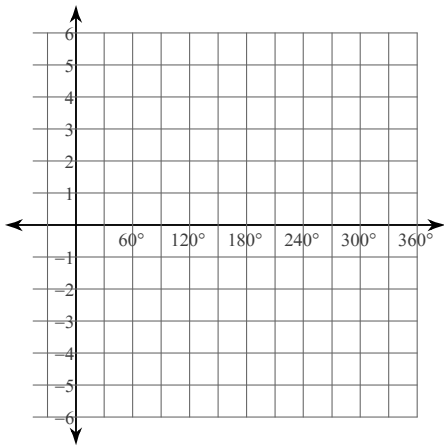
$$71) y = 2\cos(2\theta - 210) + 2$$



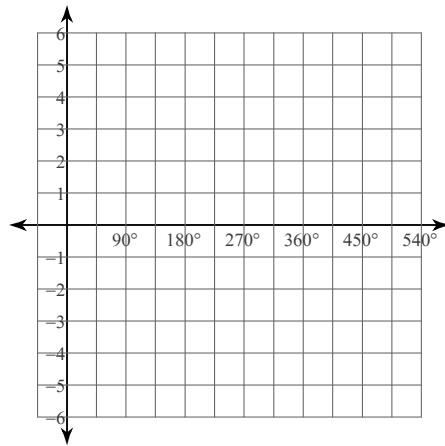
$$72) y = 2\sin 2\theta$$



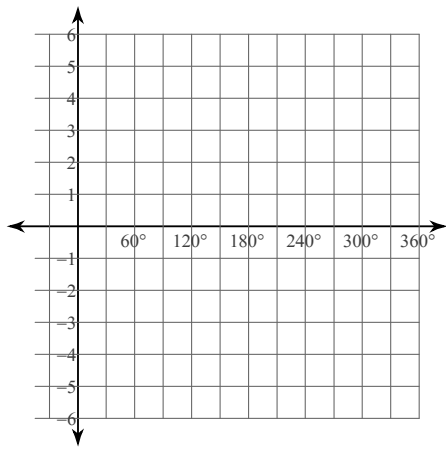
$$73) y = 3\cos(2\theta + 60) - 2$$



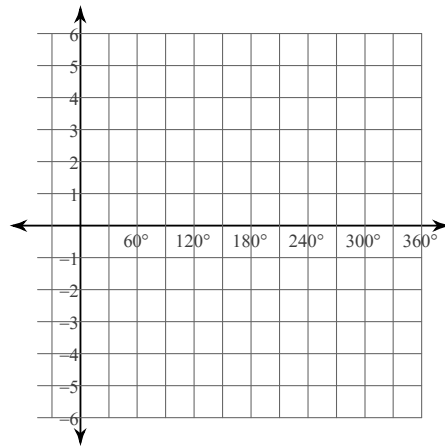
$$74) y = -2 + 4\cos(\theta + 150)$$



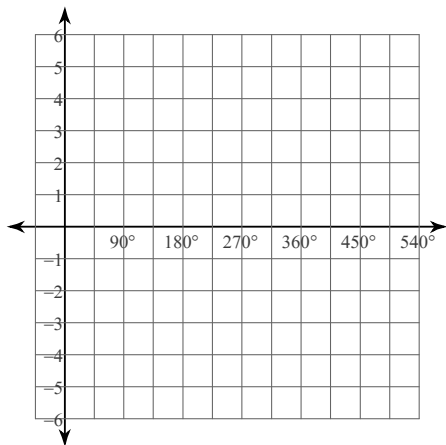
$$75) y = \frac{1}{2} \cos(4\theta + 300) - 1$$



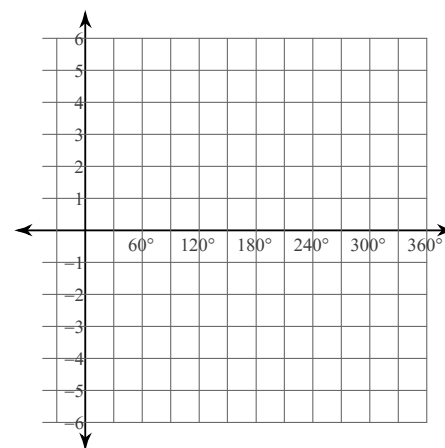
$$76) y = 3 \cos(3\theta + 210) + 2$$



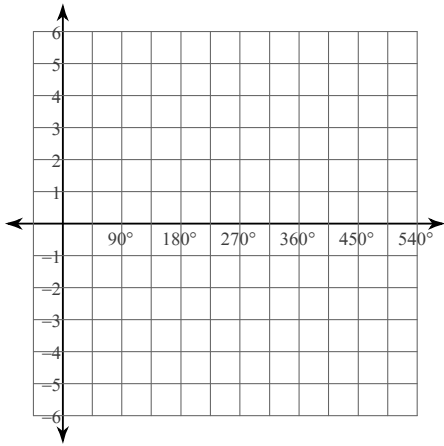
$$77) y = 2 \cos(\theta + 150) - 1$$



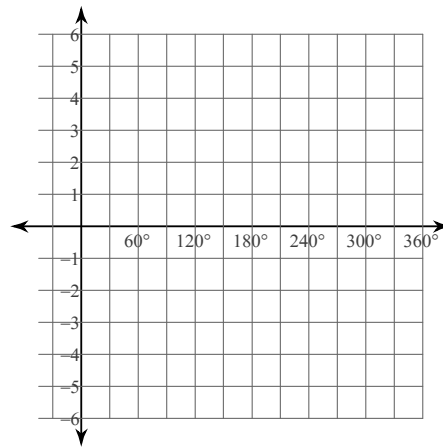
$$78) y = 1 + \frac{1}{2} \sin(4\theta - 90)$$



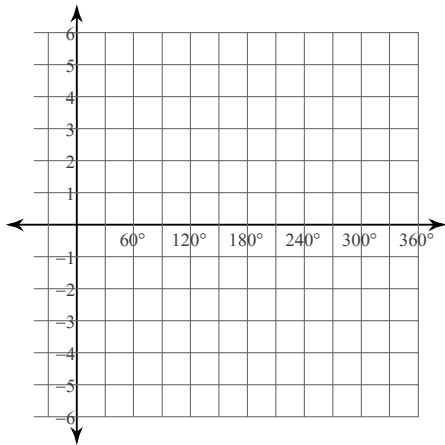
79) $y = 2 + \cos(\theta + 90)$



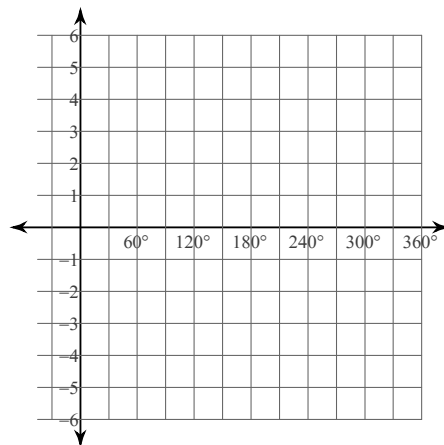
80) $y = \frac{1}{2} \sin(4\theta + 210) - 1$



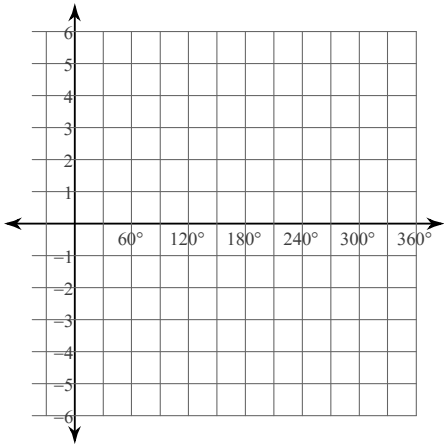
81) $y = \sin(3\theta + 60) + 1$



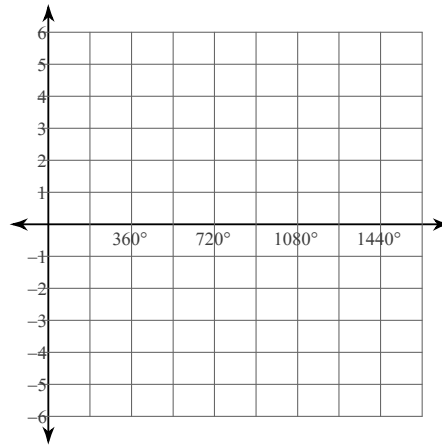
82) $y = \frac{1}{2} \cos(2\theta + 270) + 1$



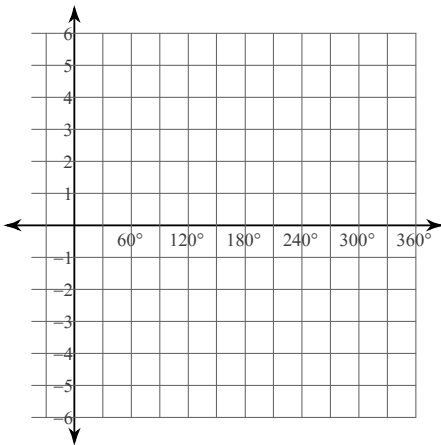
$$83) y = 4\sin(3\theta + 30) + 2$$



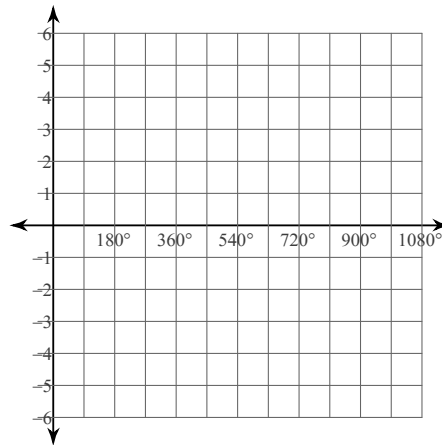
$$84) y = 3\cos\left(\frac{\theta}{3} - 240\right) + 2$$



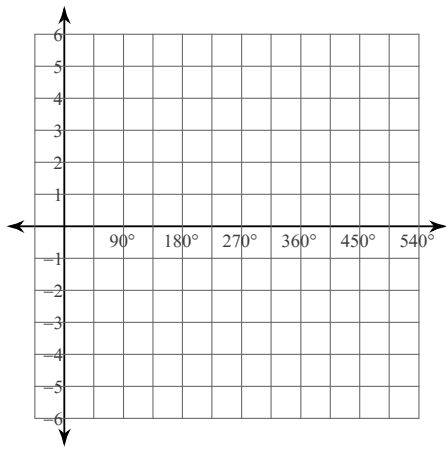
$$85) y = -2 + \frac{1}{2}\cos(3\theta + 90)$$



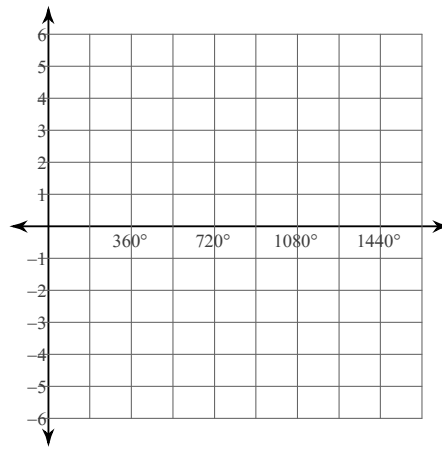
$$86) y = 2\sin\left(\frac{\theta}{2} - 240\right) + 2$$



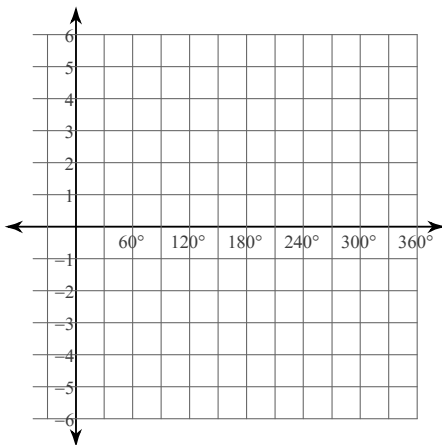
$$87) y = \frac{1}{2} \sin \theta - 2$$



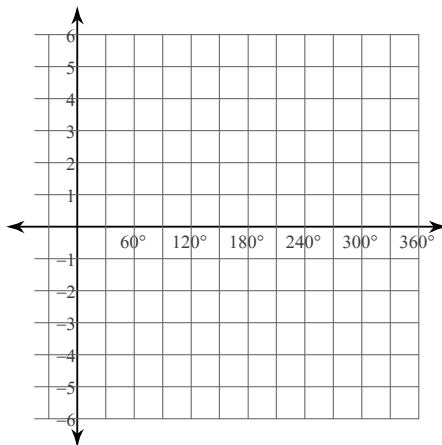
$$88) y = 4 \sin \left(\frac{\theta}{3} - 300 \right) + 2$$



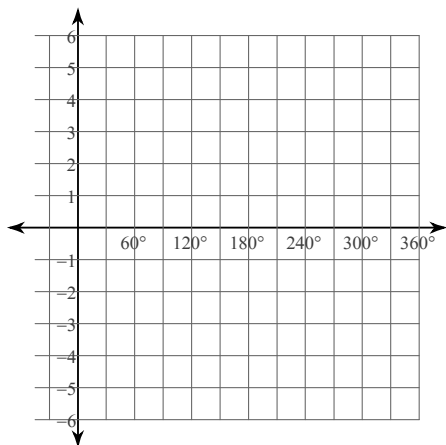
$$89) y = 4 \cos (4\theta + 330) - 1$$



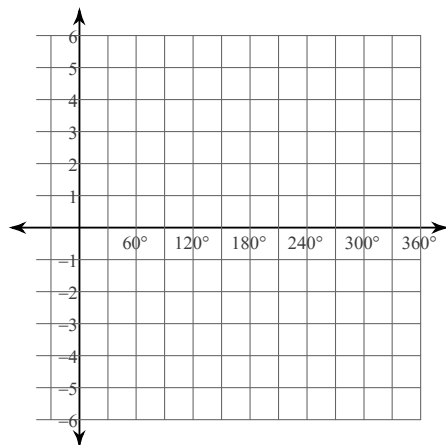
$$90) y = 1 + 4 \sin (4\theta + 30)$$



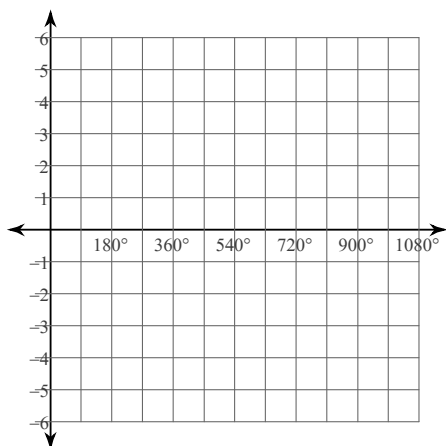
$$91) y = 4\cos(4\theta + 30) - 1$$



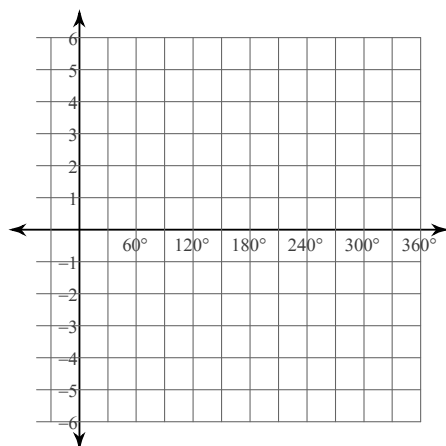
$$92) y = 2 + 2\cos(4\theta + 300)$$



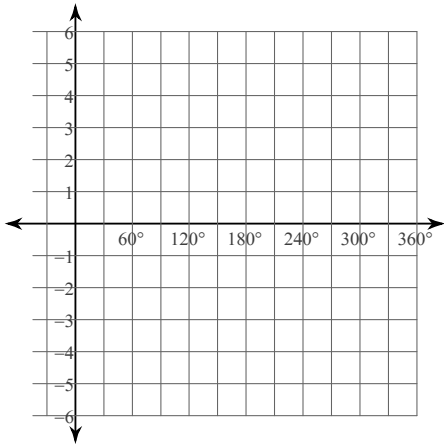
$$93) y = \frac{1}{2}\sin\frac{\theta}{2} + 2$$



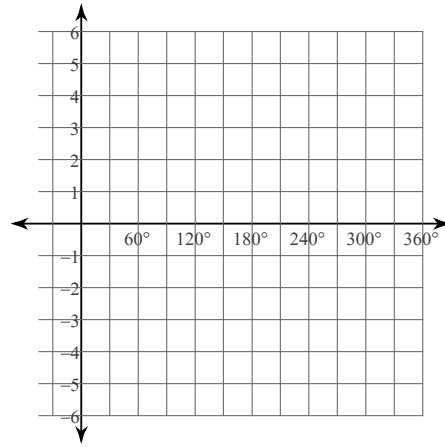
$$94) y = \frac{1}{2}\cos(3\theta + 60) - 1$$



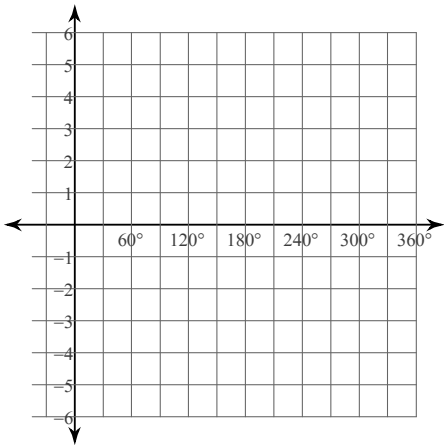
95) $y = 3\sin 4\theta - 1$



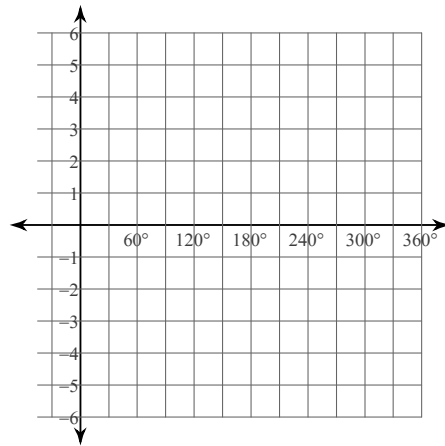
96) $y = 2 + 3\sin(2\theta + 270)$



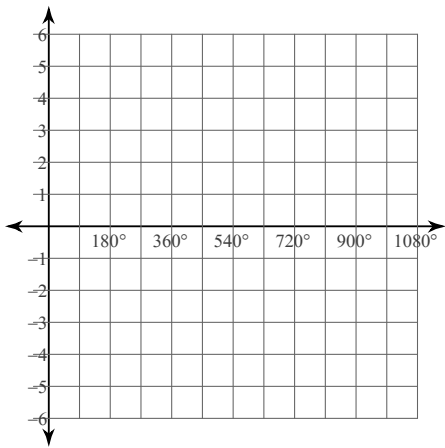
97) $y = \frac{1}{2}\sin(3\theta + 30) - 1$



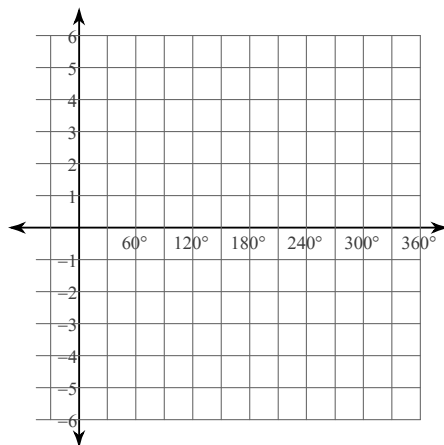
98) $y = 2\cos(4\theta + 45) + 2$



$$99) y = \frac{1}{2} \sin\left(\frac{\theta}{2} + 90\right) - 1$$

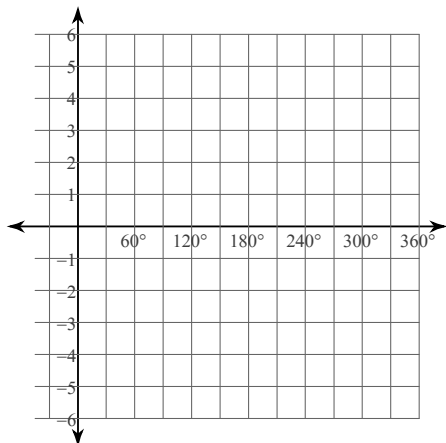


$$100) y = -1 + 2\cos(2\theta - 210)$$

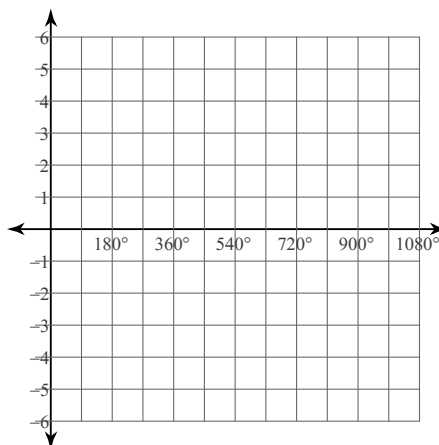


Graph a trigonometric function and find the amplitude of each one

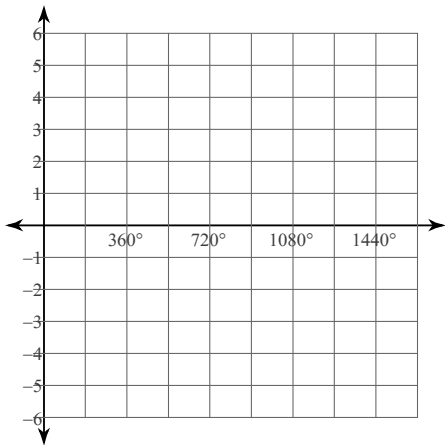
$$101) y = \cos(3\theta - 135) + 2$$



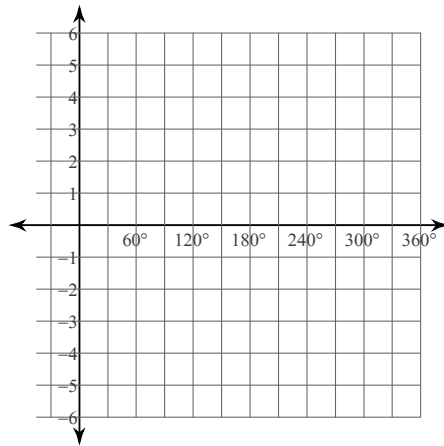
$$102) y = \cos\left(\frac{\theta}{2} - 90\right)$$



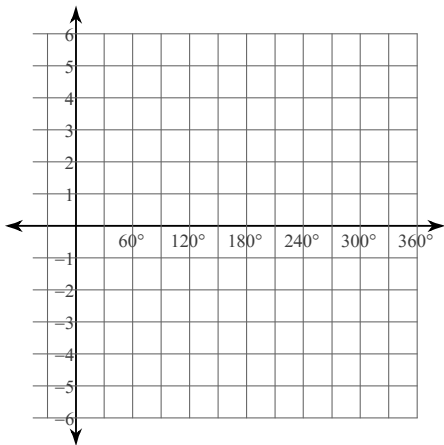
$$103) y = 1 + 2\sin\left(\frac{\theta}{3} + 120\right)$$



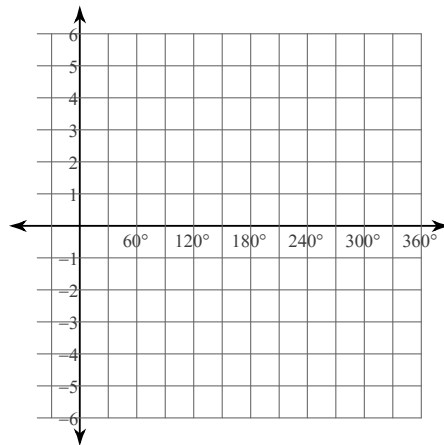
$$104) y = \frac{1}{2}\cos(3\theta - 120) - 1$$



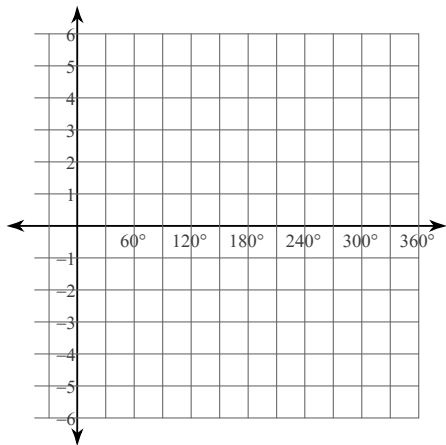
$$105) y = 4\cos(3\theta + 30) + 1$$



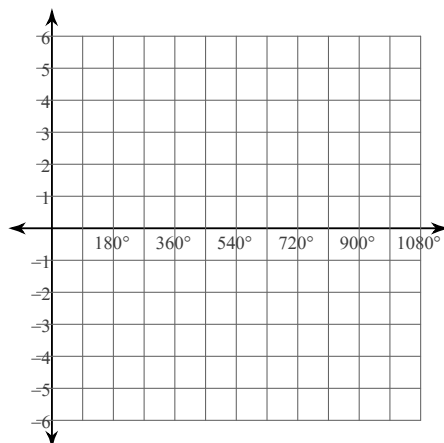
$$106) y = 3\cot(2\theta + 150) + 1$$



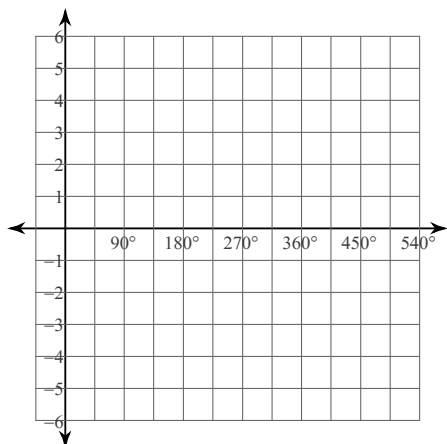
$$107) y = 2\tan(2\theta + 30) - 1$$



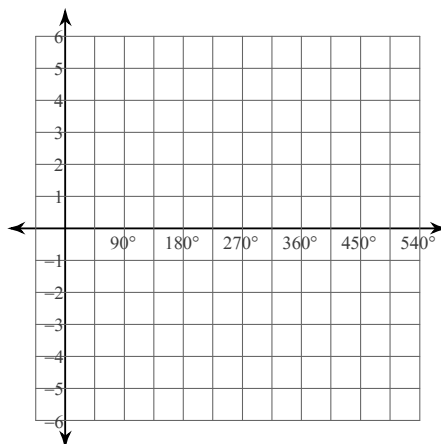
$$108) y = -2 + 3\sin\left(\frac{\theta}{2} + 150\right)$$



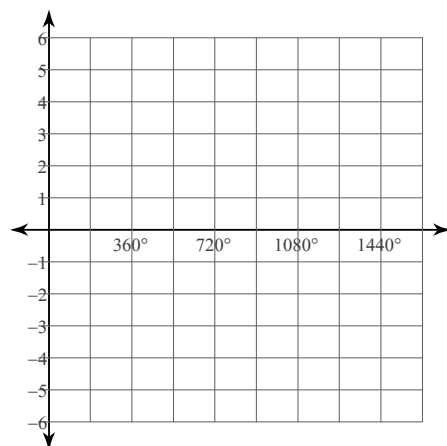
$$109) y = -1 + 4\tan\left(\frac{\theta}{2} - 150\right)$$



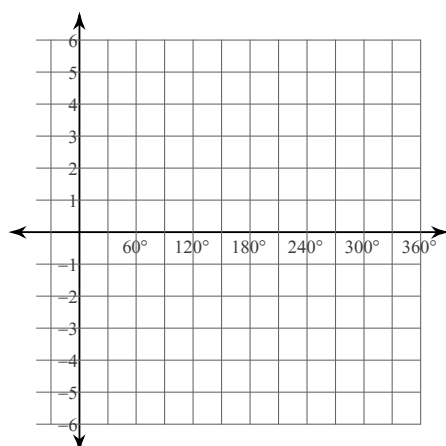
$$110) y = 3\cot\left(\frac{\theta}{2} - 30\right) - 2$$



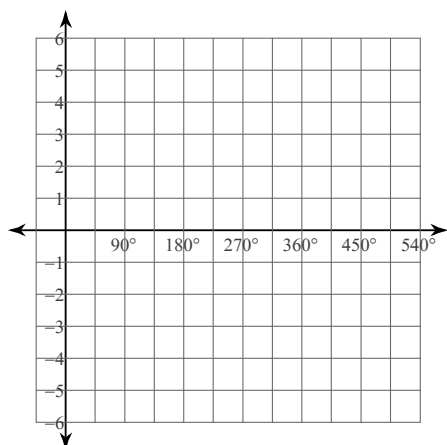
$$111) y = 3\sin\left(\frac{\theta}{3} + 90\right) - 2$$



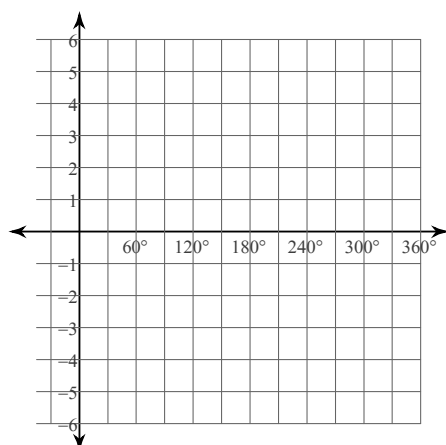
$$112) y = 4\cos(3\theta + 45) + 2$$



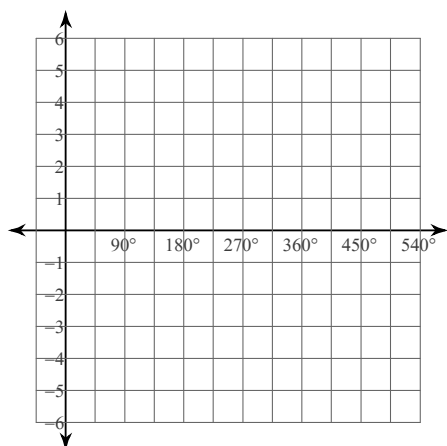
$$113) y = \frac{1}{2}\tan\left(\frac{\theta}{2} + 150\right) - 2$$



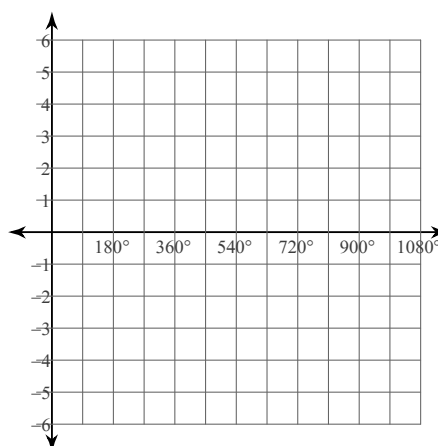
$$114) y = 2\cos(3\theta - 330) - 2$$



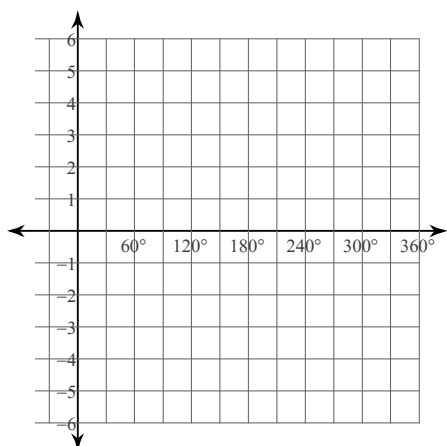
$$115) y = 3\tan\left(\frac{\theta}{2} - 30\right) + 1$$



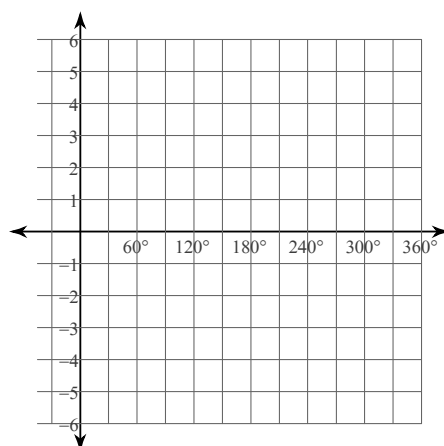
$$116) y = -1 + \frac{1}{2}\sin\left(\frac{\theta}{2} - 225\right)$$



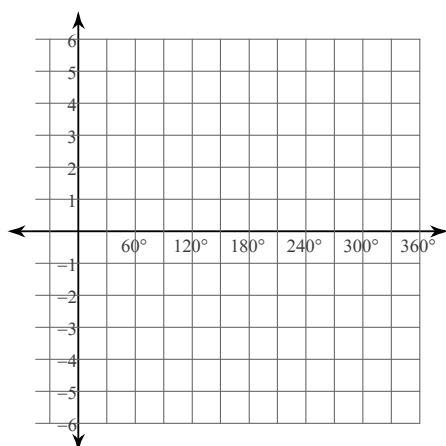
$$117) y = 3\sin(3\theta + 120) - 2$$



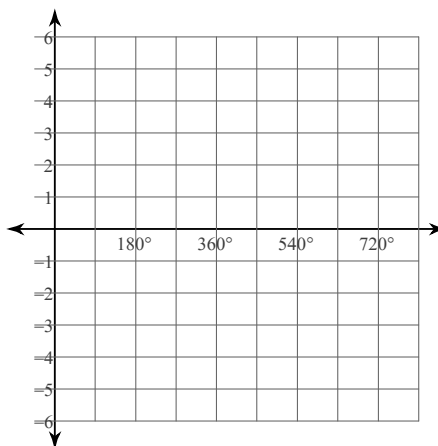
$$118) y = -1 + \frac{1}{2}\tan\theta$$



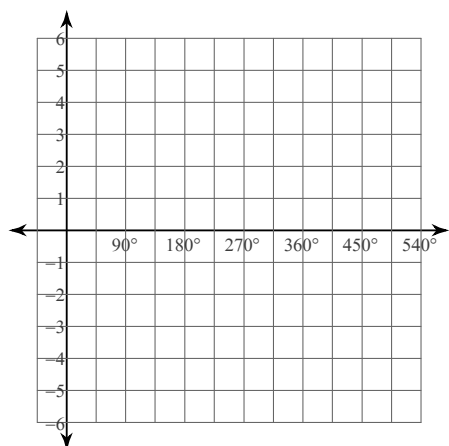
$$119) y = 4\cot(2\theta + 120) + 2$$



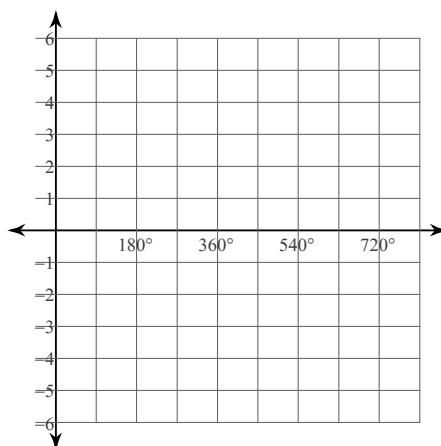
$$120) y = 4\tan\left(\frac{\theta}{3} + 30\right) - 2$$



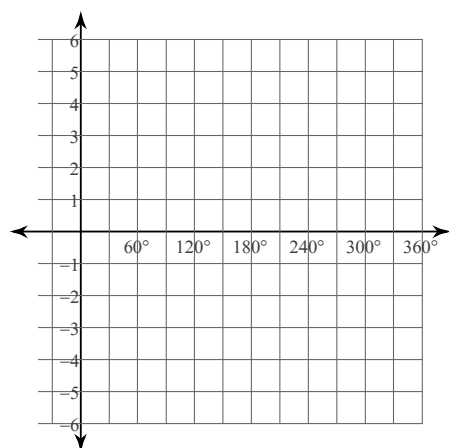
$$121) y = 4\cot\left(\frac{\theta}{2} - 45\right) - 1$$



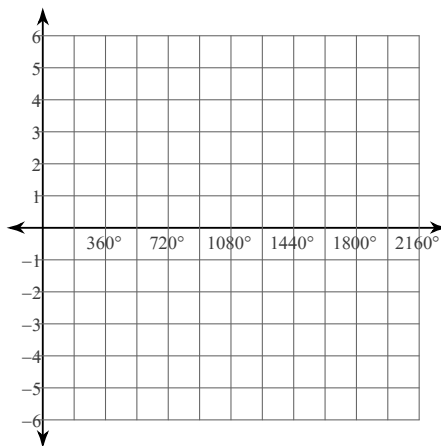
$$122) y = 2\cot\left(\frac{\theta}{3} + 150\right) + 1$$



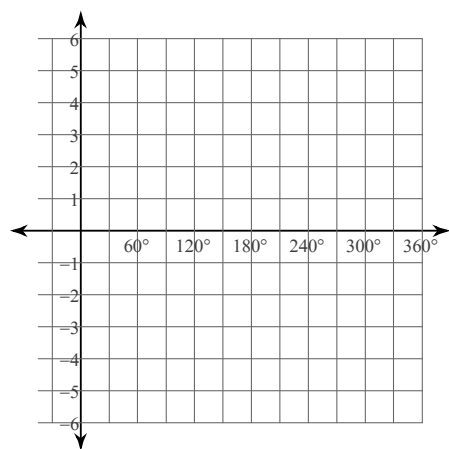
$$123) y = \frac{1}{2}\sin(3\theta - 210) + 1$$



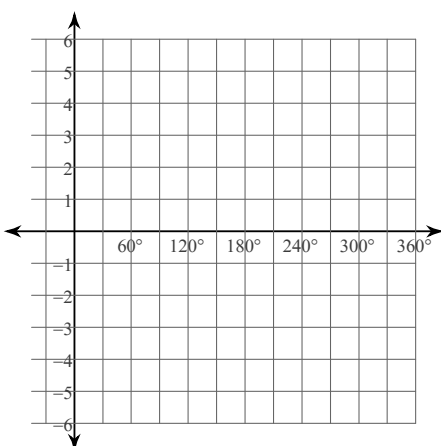
$$124) y = 2\cos\left(\frac{\theta}{4} + 90\right) - 1$$



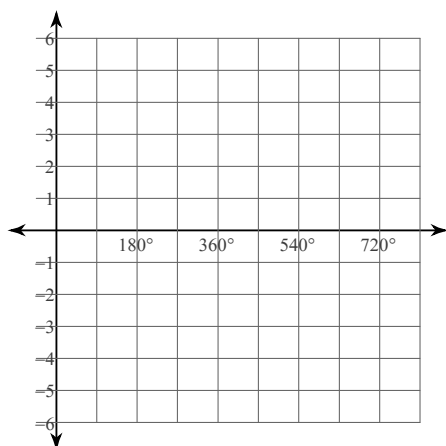
$$125) y = 1 + \frac{1}{2}\sin(3\theta - 60)$$



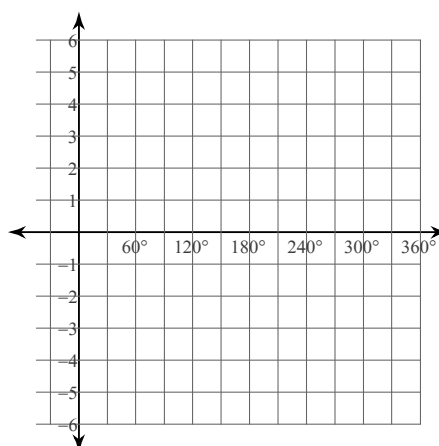
$$126) y = 2 + \cos(4\theta + 150)$$



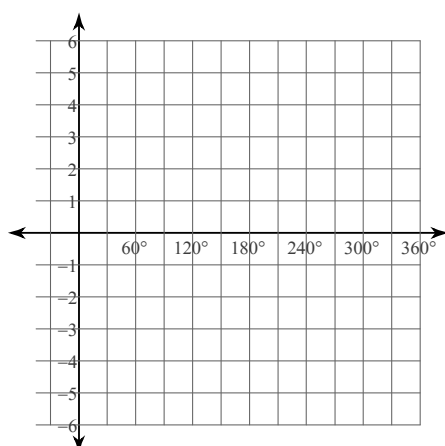
$$127) y = 4\cot\left(\frac{\theta}{3} - 315\right) + 1$$



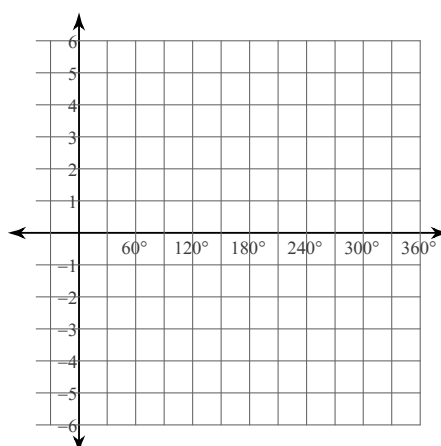
$$128) y = -1 + \frac{1}{2}\sin(4\theta + 135)$$



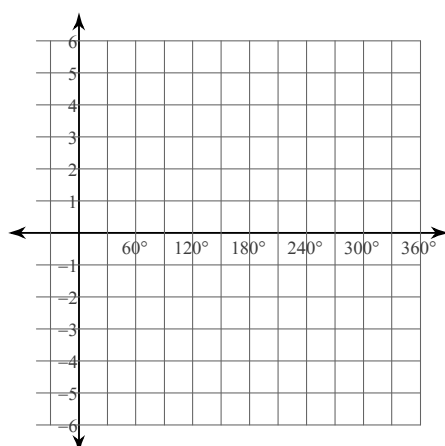
$$129) y = 4\cos(4\theta - 135) + 1$$



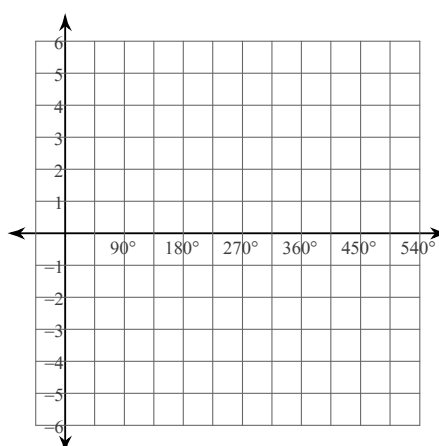
$$130) y = 4\tan(2\theta + 120) - 1$$



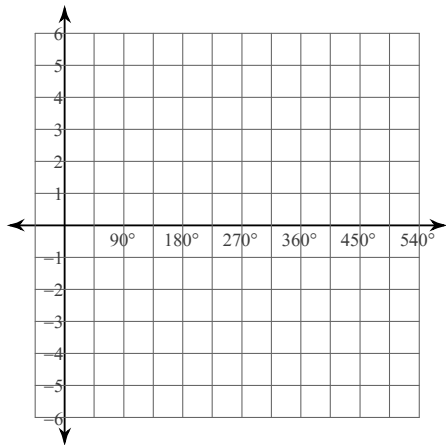
$$131) y = -2 + 4\cot(\theta - 120)$$



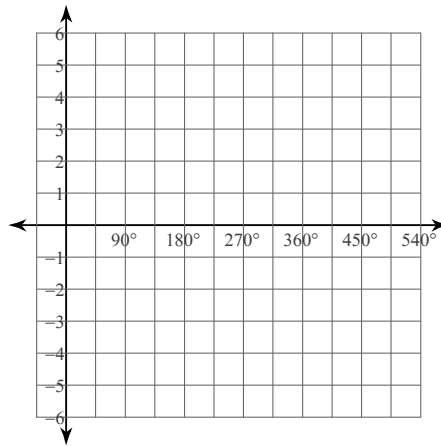
$$132) y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 120\right) - 1$$



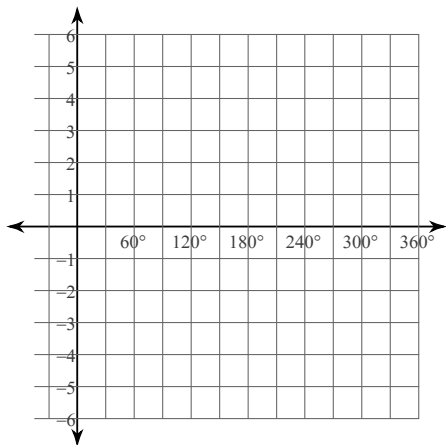
$$133) y = 1 + 3 \tan \left(\frac{\theta}{2} - 90 \right)$$



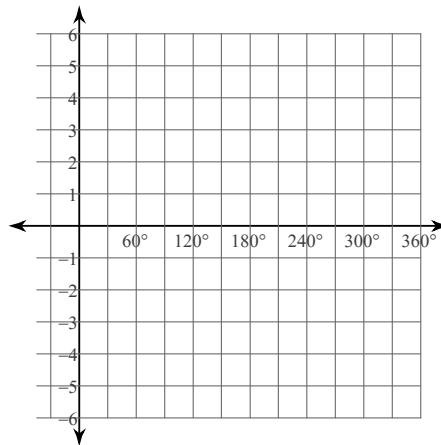
$$134) y = \frac{1}{2} \sin (\theta + 45) + 2$$



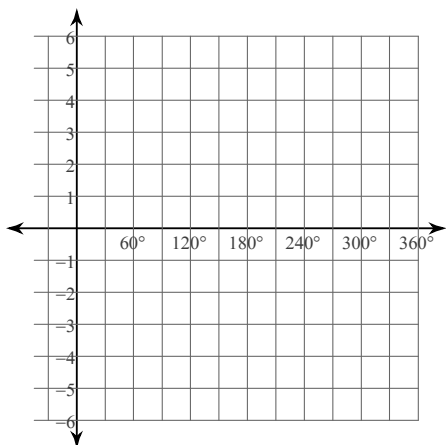
$$135) y = \frac{1}{2} \tan (2\theta + 120) - 2$$



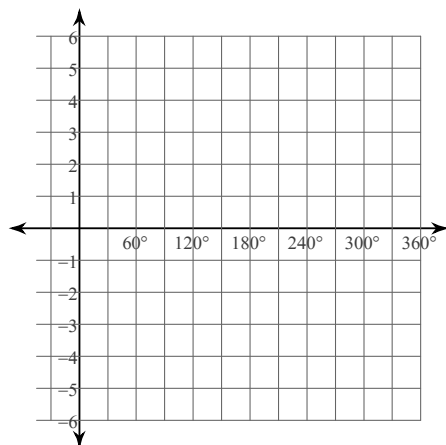
$$136) y = 4 \sin (4\theta - 270) + 1$$



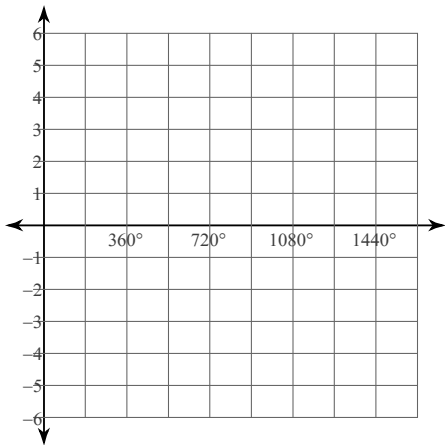
$$137) y = 2 \sin (3\theta - 150) - 2$$



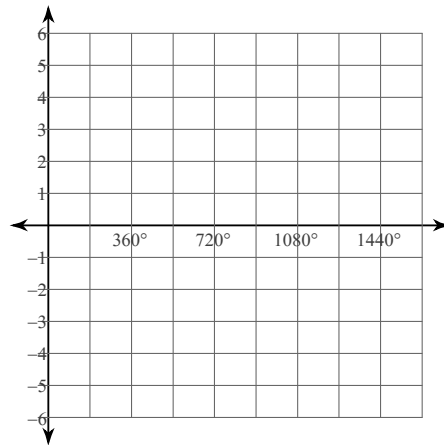
$$138) y = 1 + 2 \cos (4\theta + 30)$$



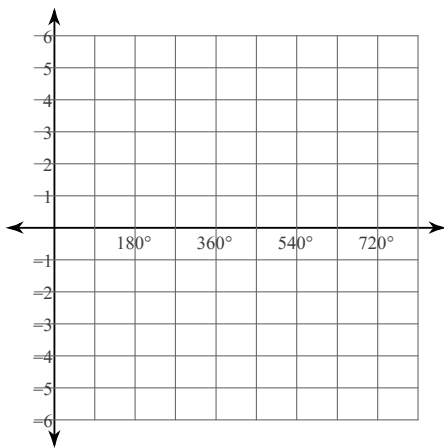
$$139) y = \sin\left(\frac{\theta}{3} + 150\right) + 2$$



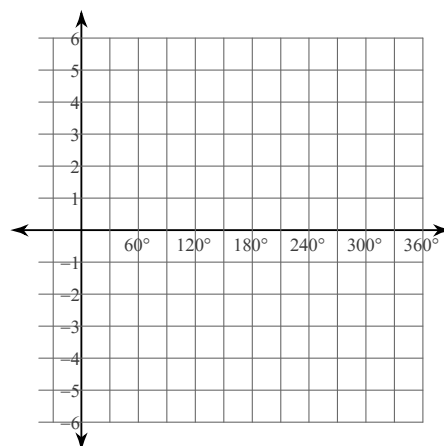
$$140) y = 3\cos\left(\frac{\theta}{3} + 150\right) - 2$$



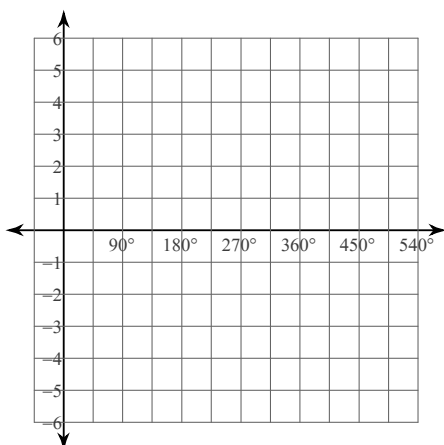
$$141) y = 2\cot\left(\frac{\theta}{3} + 210\right) + 2$$



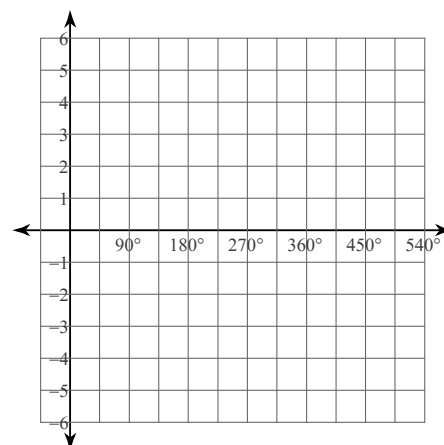
$$142) y = -2 + 3\tan(2\theta + 330)$$



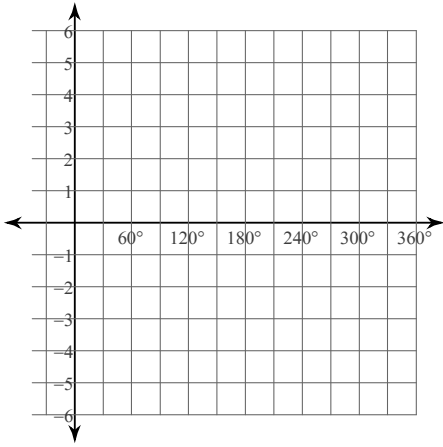
$$143) y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 135\right) + 1$$



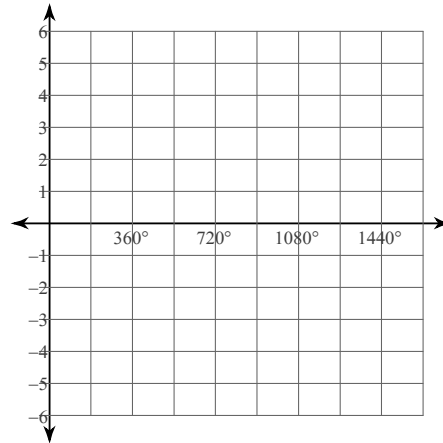
$$144) y = 3\tan\left(\frac{\theta}{2} + 30\right) - 2$$



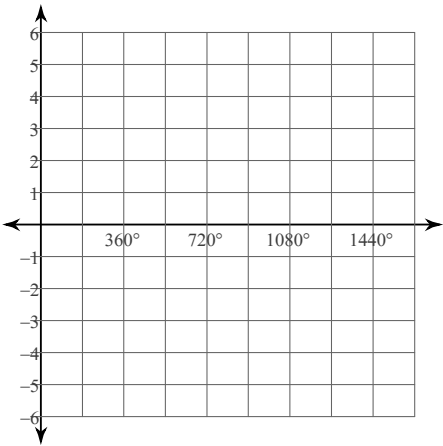
145) $y = 3\sin(2\theta + 135) + 1$



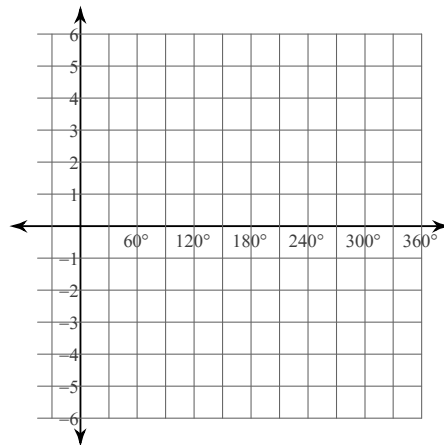
146) $y = \sin \frac{\theta}{3}$



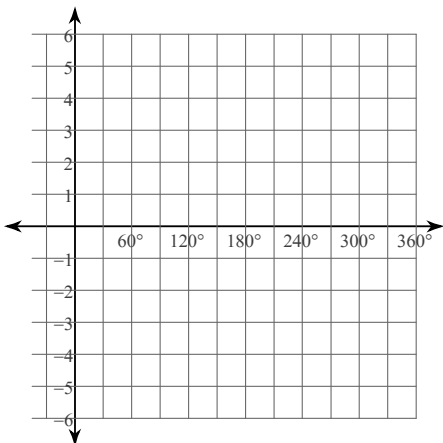
147) $y = \frac{1}{2}\cos\left(\frac{\theta}{3} + 135\right) + 1$



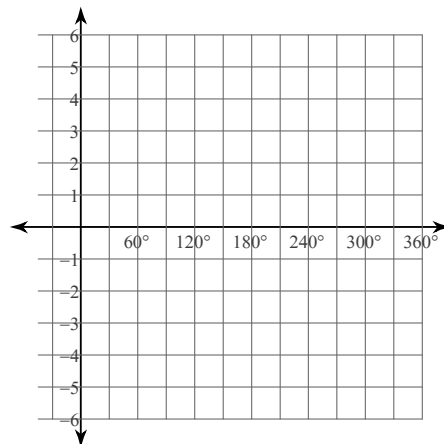
148) $y = 2 + 4\cos(2\theta - 45)$



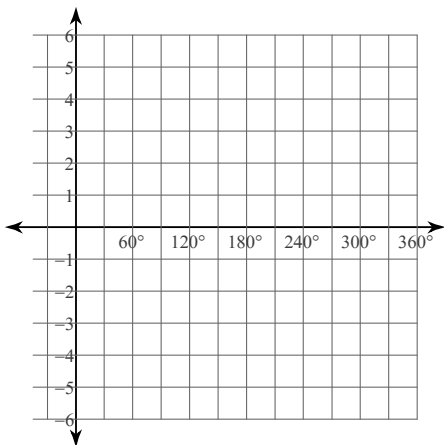
149) $y = 2 + 4\cos(2\theta + 210)$



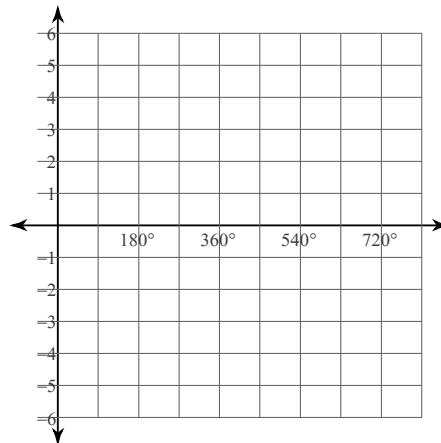
150) $y = \frac{1}{2}\cot(2\theta + 30) + 1$



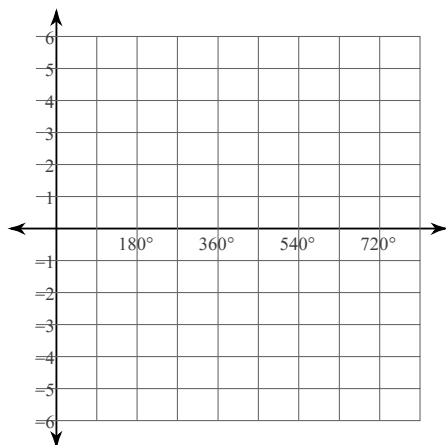
$$151) y = \frac{1}{2} \cos(2\theta + 120) + 2$$



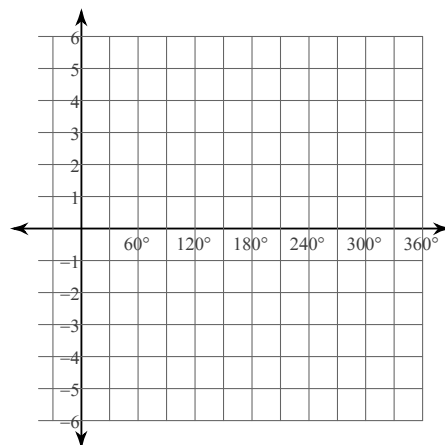
$$152) y = 2 \tan\left(\frac{\theta}{3} + 270\right) + 2$$



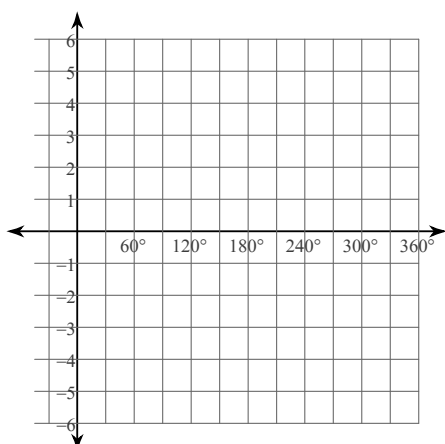
$$153) y = \frac{1}{2} \cot\left(\frac{\theta}{3} - 270\right) - 1$$



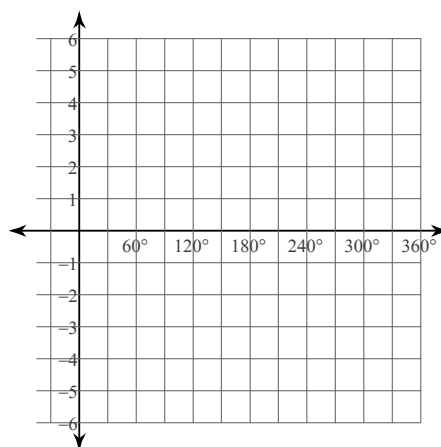
$$154) y = \frac{1}{2} \cot(\theta + 60)$$



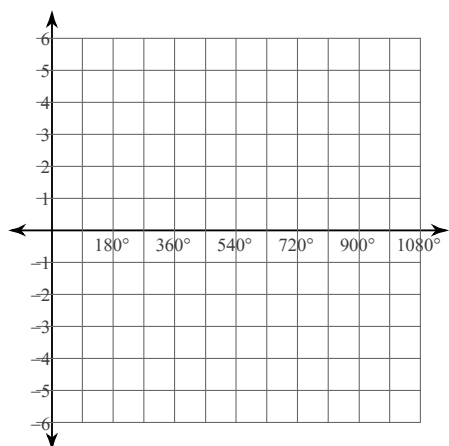
$$155) y = 3 \tan(2\theta - 60) + 2$$



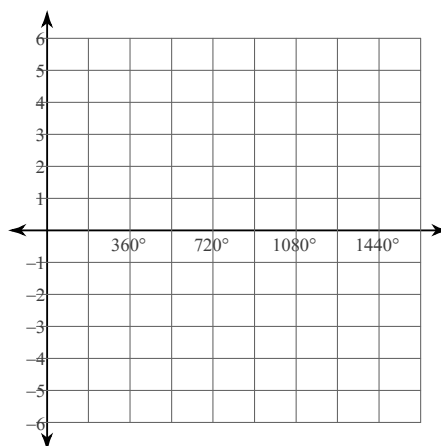
$$156) y = \frac{1}{2} \sin(4\theta - 45) - 2$$



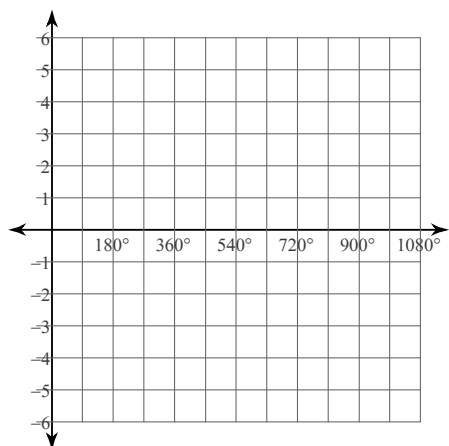
$$157) y = 4\cos\left(\frac{\theta}{2} + 120\right) + 1$$



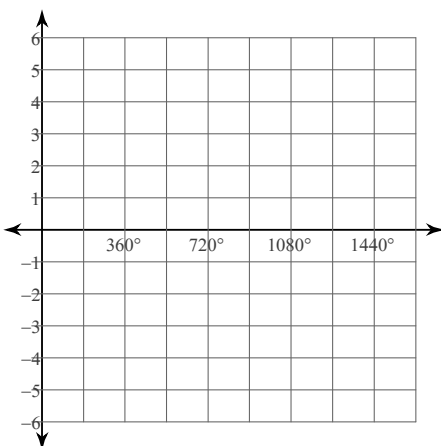
$$158) y = -2 + 4\sin\left(\frac{\theta}{3} + 30\right)$$



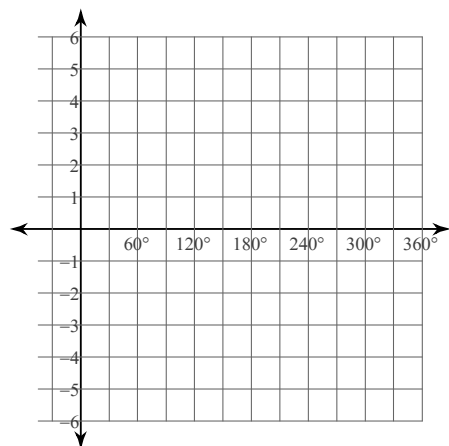
$$159) y = 3\cos\left(\frac{\theta}{2} + 60\right) + 2$$



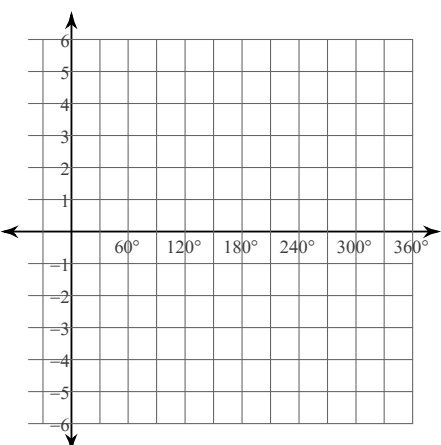
$$160) y = -2 + 2\cos\left(\frac{\theta}{3} + 60\right)$$



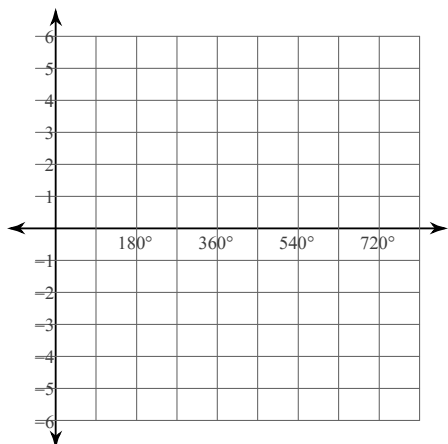
$$161) y = \frac{1}{2}\sin(2\theta + 150) + 2$$



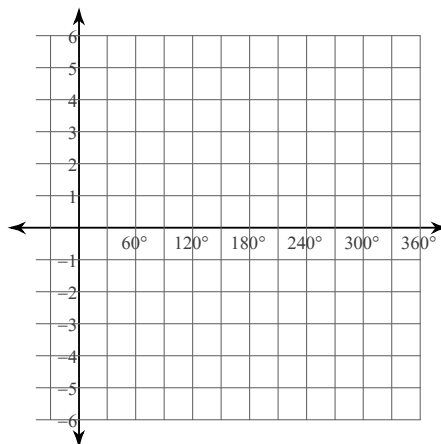
$$162) y = 4\cos(2\theta - 30) + 1$$



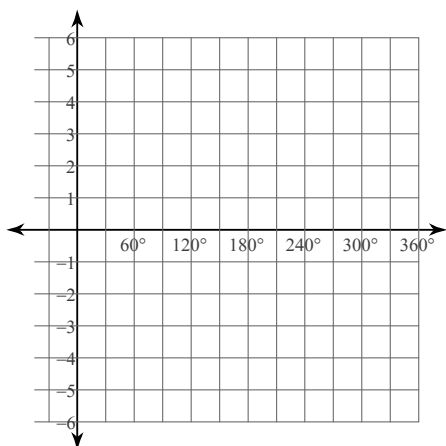
$$163) y = 4\tan\left(\frac{\theta}{3} + 150\right)$$



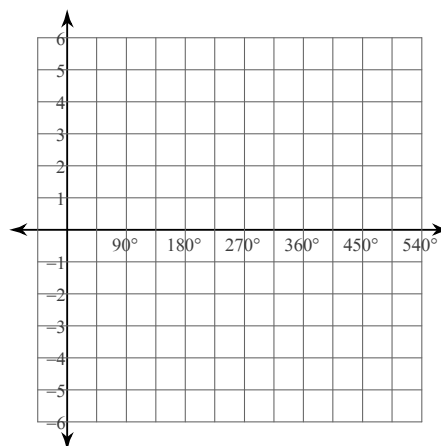
$$164) y = 4\tan(2\theta - 150) - 1$$



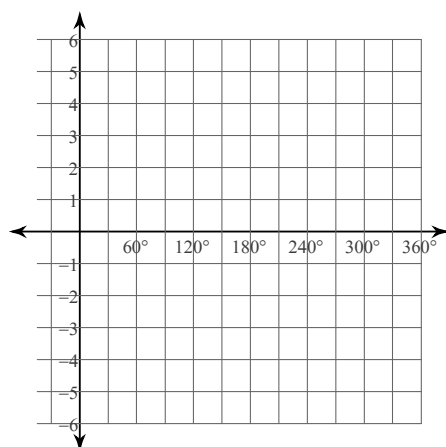
$$165) y = \frac{1}{2}\tan(\theta + 60) - 1$$



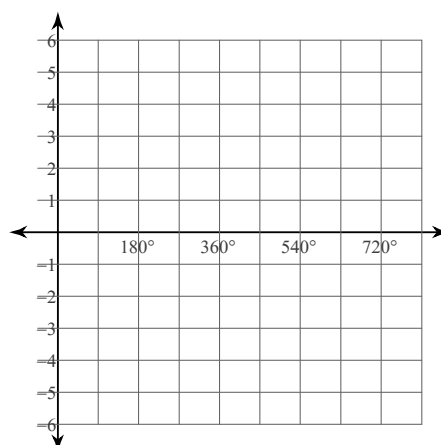
$$166) y = 2 + 3\cot\left(\frac{\theta}{2} + 120\right)$$



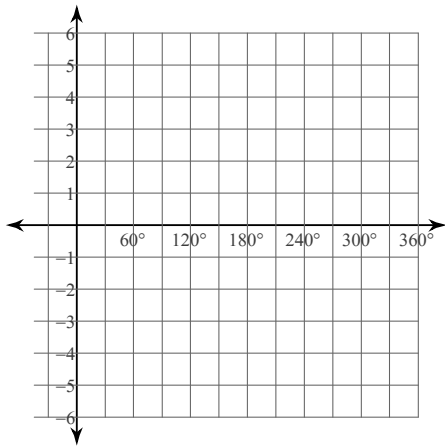
$$167) y = 3\sin(2\theta + 150) + 1$$



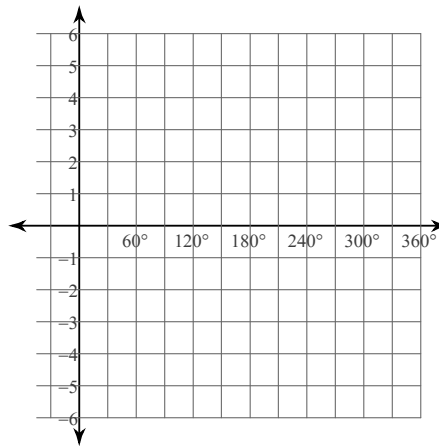
$$168) y = 4\cot\left(\frac{\theta}{3} + 60\right) - 1$$



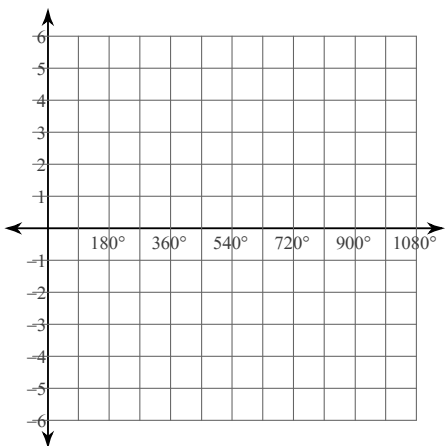
$$169) y = \frac{1}{2} \sin(2\theta + 60) - 2$$



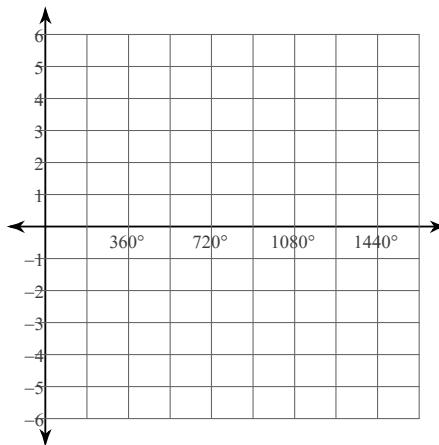
$$170) y = 2 + 3 \sin(4\theta + 45)$$



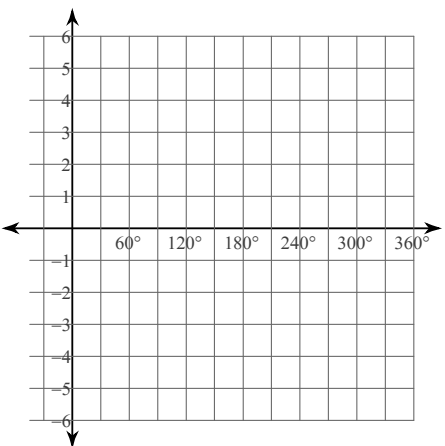
$$171) y = \frac{1}{2} \cos\left(\frac{\theta}{2} - 90\right) + 1$$



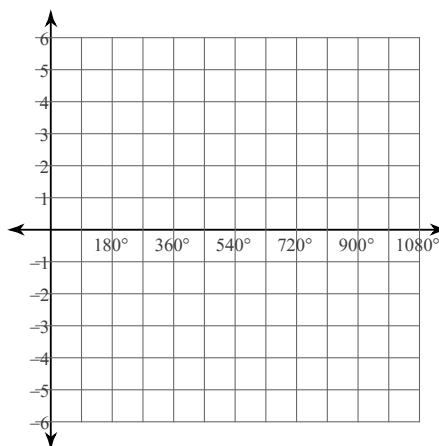
$$172) y = 2 + 4 \cos\left(\frac{\theta}{3} - 45\right)$$



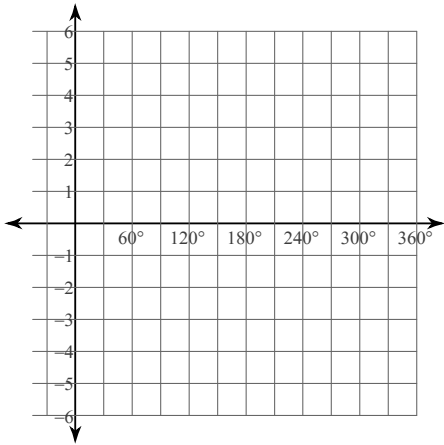
$$173) y = 3 \cot(\theta + 30) - 2$$



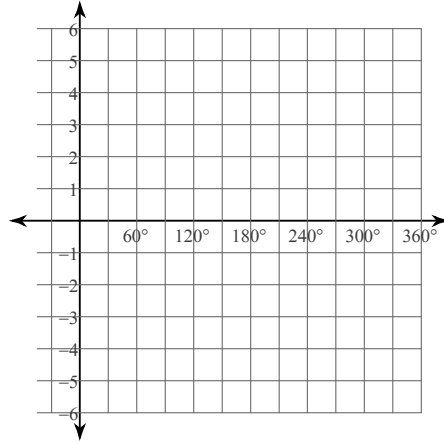
$$174) y = \frac{1}{2} \cos\left(\frac{\theta}{2} - 90\right)$$



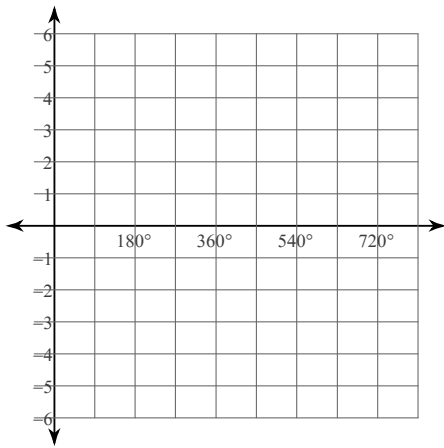
$$175) y = \frac{1}{2} \tan(2\theta - 45) - 2$$



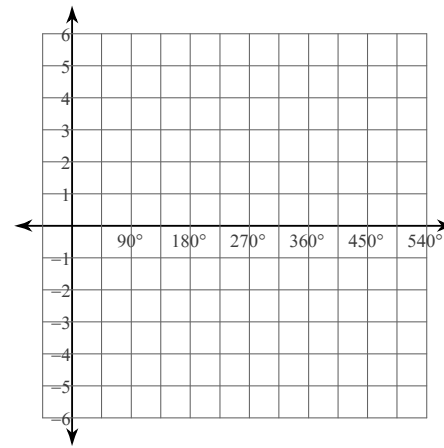
$$176) y = 2 \cot(2\theta + 45) + 1$$



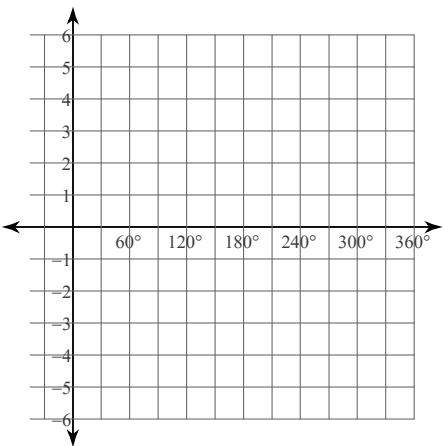
$$177) y = 3 \cot\left(\frac{\theta}{3} + 30\right) - 1$$



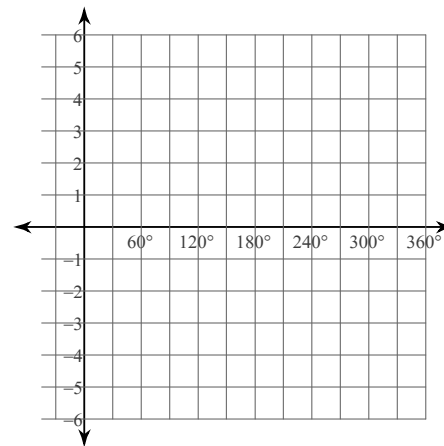
$$178) y = \frac{1}{2} \tan\left(\frac{\theta}{2} + 45\right) + 2$$



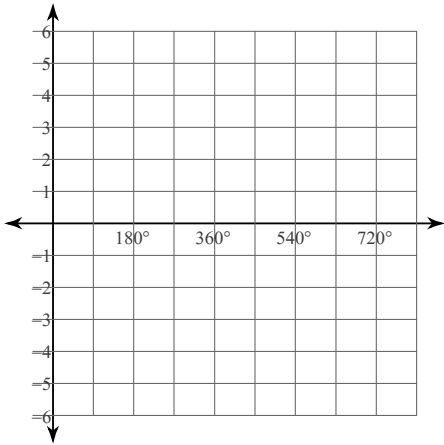
$$179) y = \frac{1}{2} \cos(3\theta - 225) - 1$$



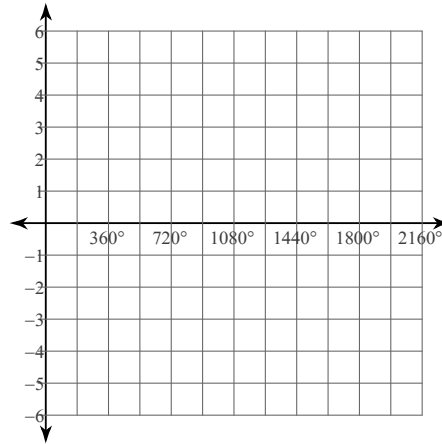
$$180) y = \frac{1}{2} \sin(3\theta - 135) - 1$$



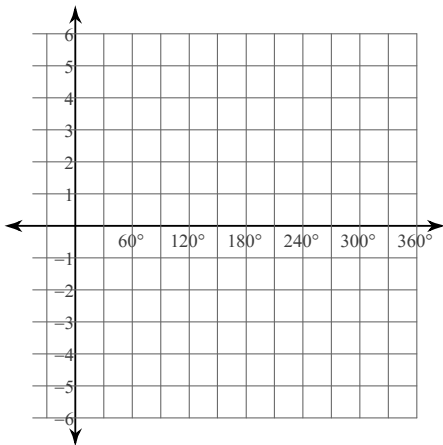
$$181) y = -2 + 3\tan\left(\frac{\theta}{3} + 45\right)$$



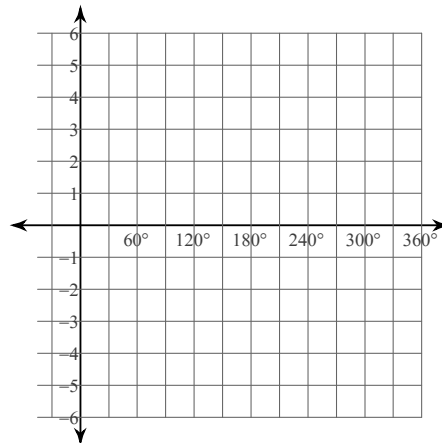
$$182) y = \frac{1}{2}\cos\left(\frac{\theta}{4} + 150\right) + 2$$



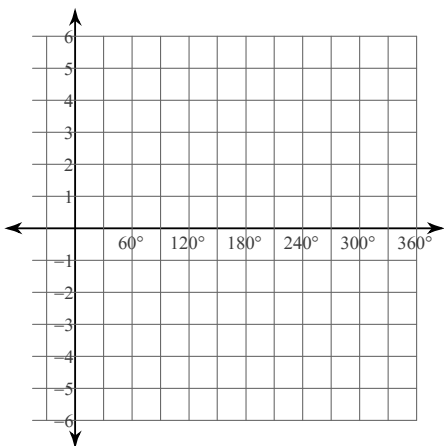
$$183) y = 3\cot(2\theta - 120) - 1$$



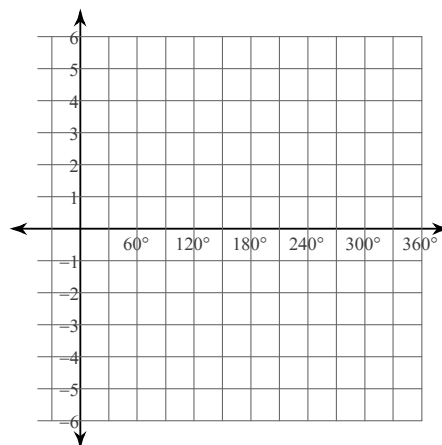
$$184) y = \frac{1}{2}\cos(2\theta + 90) + 1$$



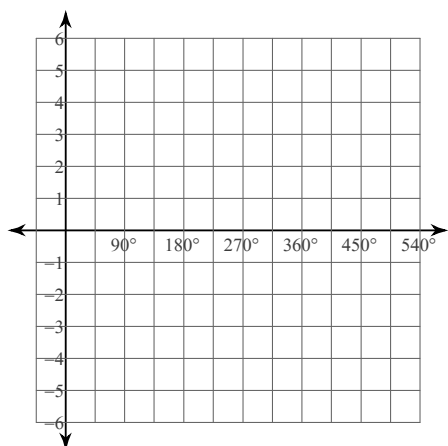
$$185) y = 4\sin(4\theta + 330)$$



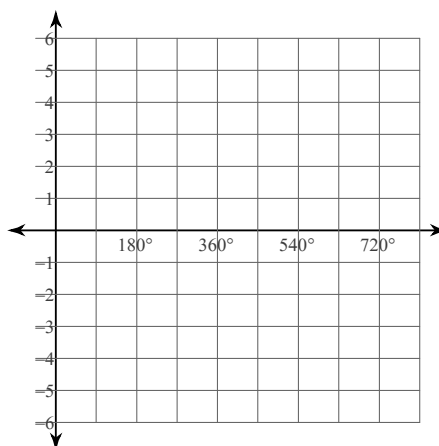
$$186) y = \frac{1}{2}\tan(\theta + 135)$$



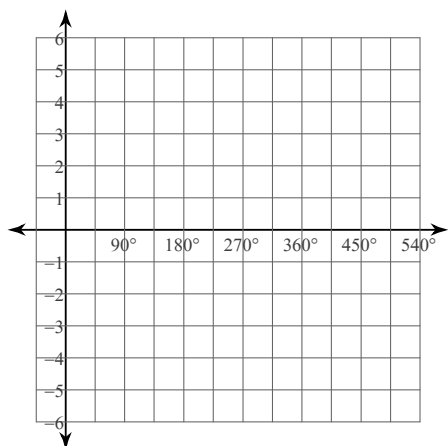
$$187) y = 4\cot\left(\frac{\theta}{2} - 90\right) + 2$$



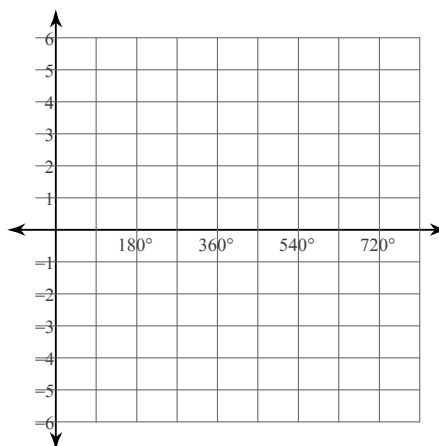
$$188) y = \frac{1}{2}\tan\left(\frac{\theta}{3} + 135\right) - 2$$



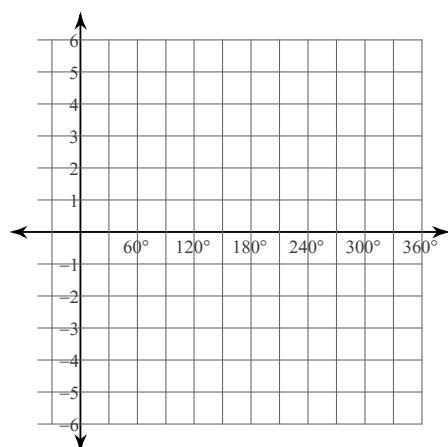
$$189) y = 3\cot\left(\frac{\theta}{2} - 90\right) - 2$$



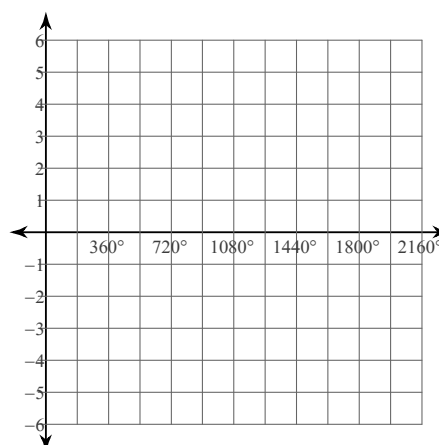
$$190) y = 4\tan\left(\frac{\theta}{3} - 60\right) - 2$$



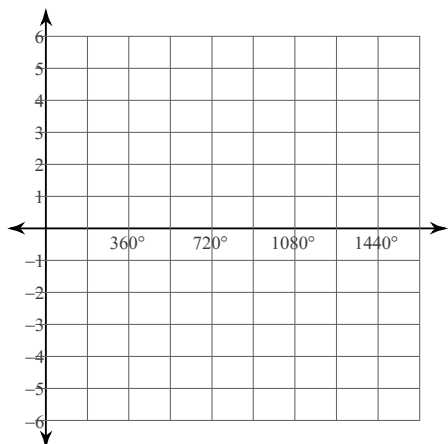
$$191) y = \frac{1}{2}\sin 4\theta - 1$$



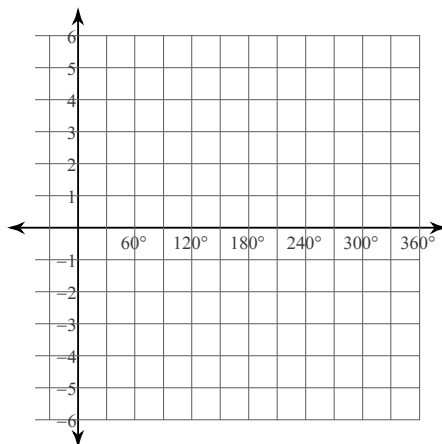
$$192) y = 1 + 3\sin\left(\frac{\theta}{4} - 45\right)$$



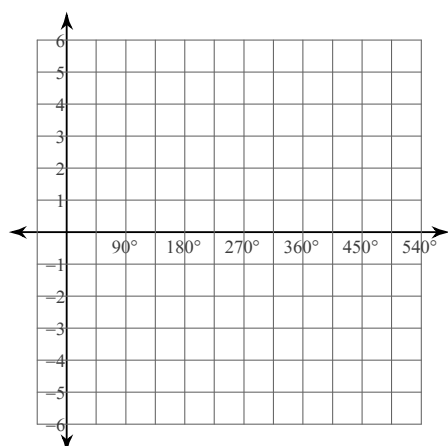
193) $y = 1 + 2\cos\left(\frac{\theta}{3} + 45\right)$



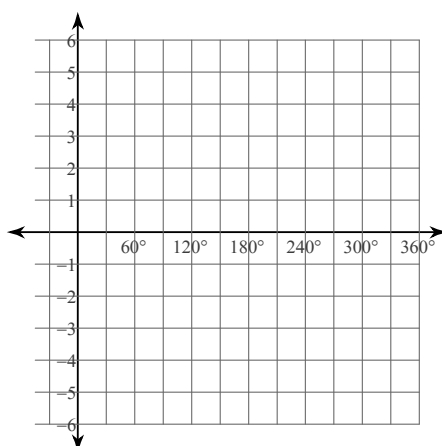
194) $y = \cos 4\theta - 1$



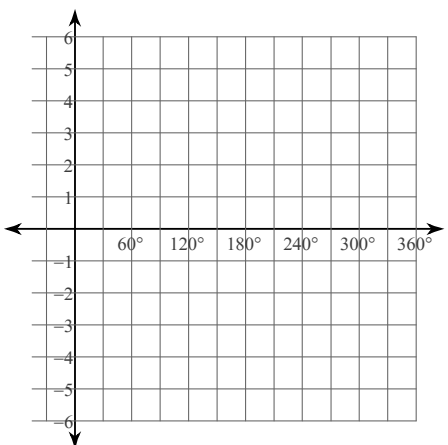
195) $y = 3\sin(\theta + 135) + 2$



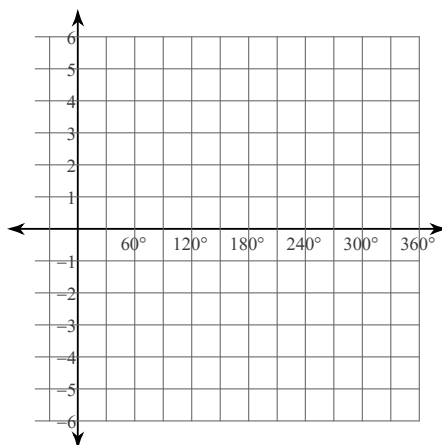
196) $y = 2\cot(2\theta - 150) - 1$



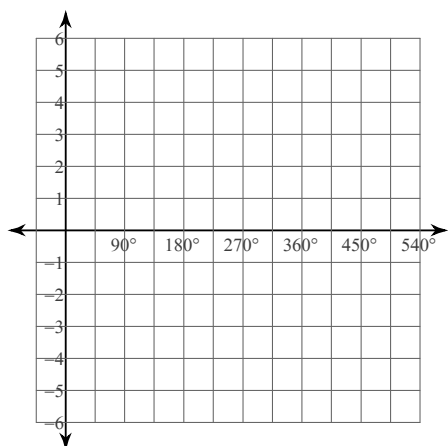
197) $y = 4\cos(2\theta + 150) - 1$



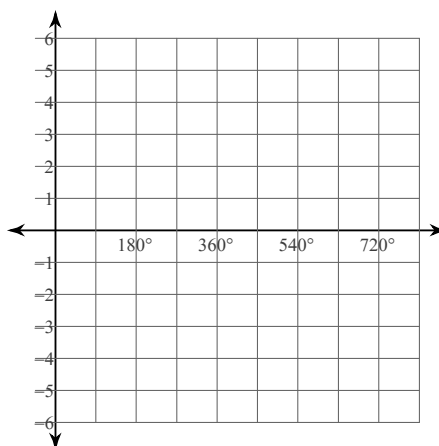
198) $y = 1 + 4\cot(2\theta - 330)$



$$199) y = \cot\left(\frac{\theta}{2} + 135\right) + 1$$

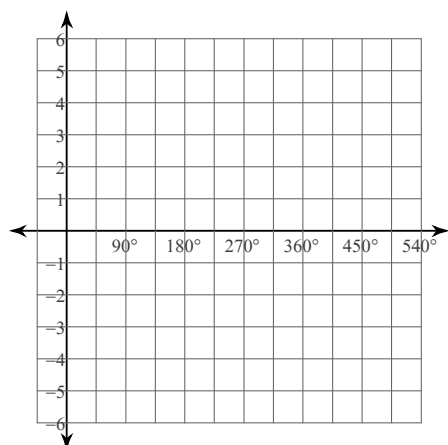


$$200) y = -2 + 2\tan\left(\frac{\theta}{3} - 330\right)$$

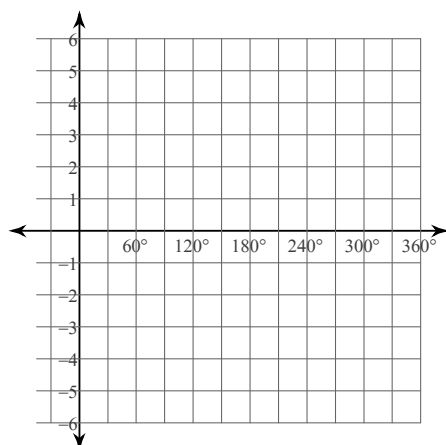


Graph a trigonometric function and find the period of each one

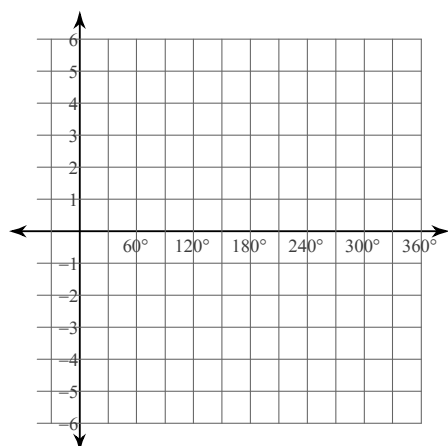
$$201) y = 4\sin(\theta - 270) - 1$$



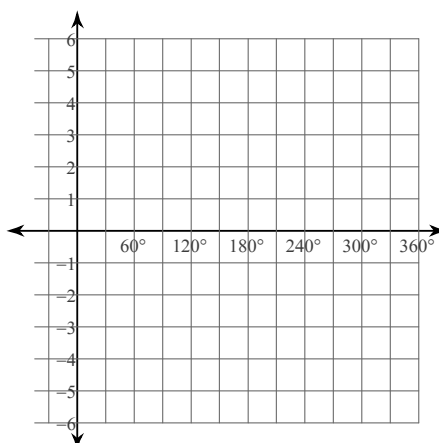
$$202) y = 3\cos(2\theta + 30) - 1$$



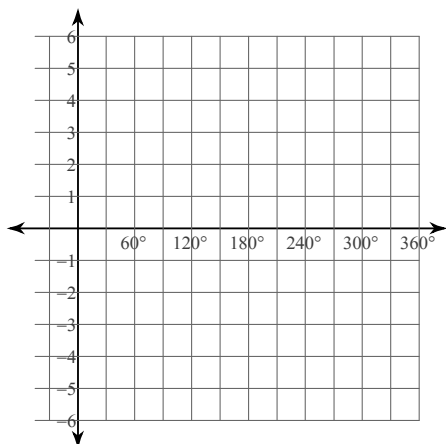
$$203) y = \frac{1}{2}\sin(2\theta - 135) + 1$$



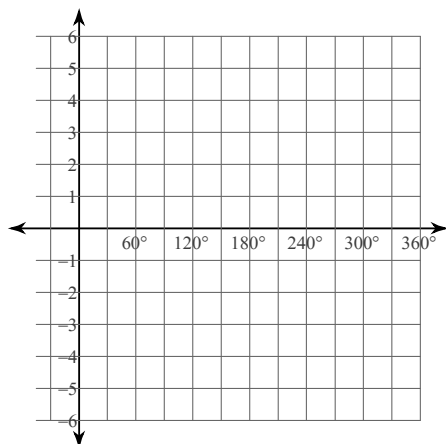
$$204) y = 2\sin(3\theta + 120) + 1$$



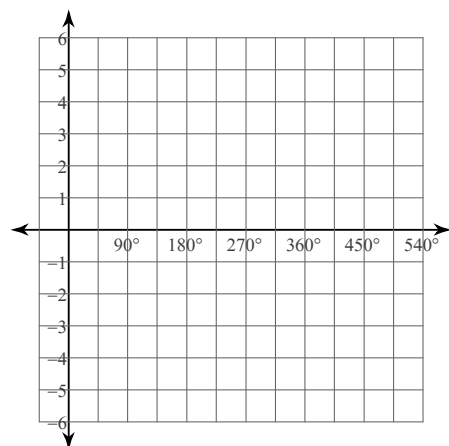
$$205) y = \frac{1}{2} \cos(3\theta + 60) + 1$$



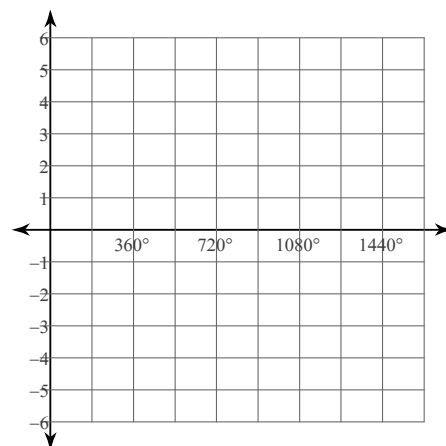
$$206) y = -1 + \frac{1}{2} \cos(3\theta - 45)$$



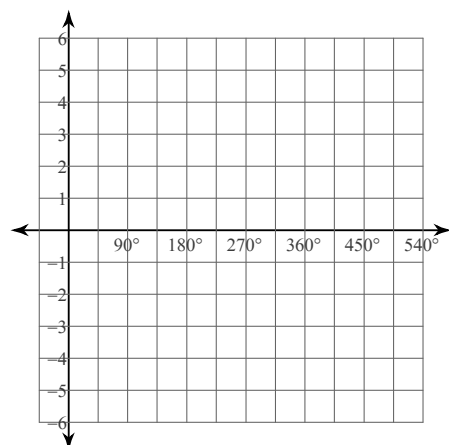
$$207) y = 3 \cot\left(\frac{\theta}{2} - 120\right) - 1$$



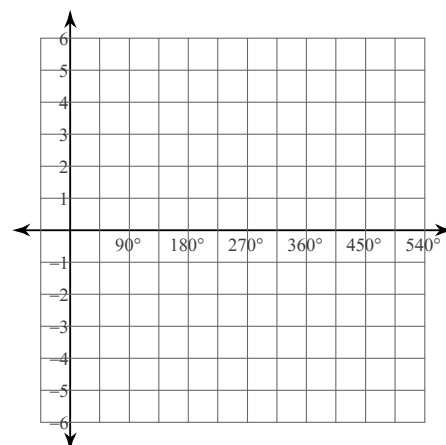
$$208) y = 4 \cos\left(\frac{\theta}{3} + 45\right) - 2$$



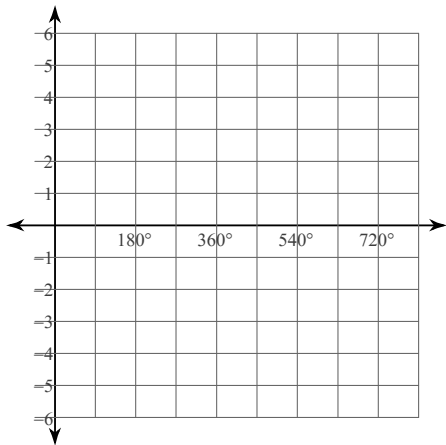
$$209) y = 4 \cot\left(\frac{\theta}{2} + 135\right) - 2$$



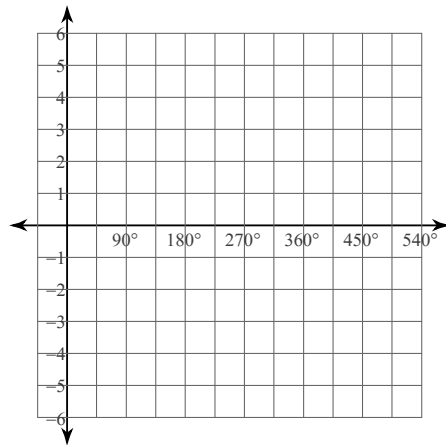
$$210) y = 4 \cot\left(\frac{\theta}{2} + 45\right) - 2$$



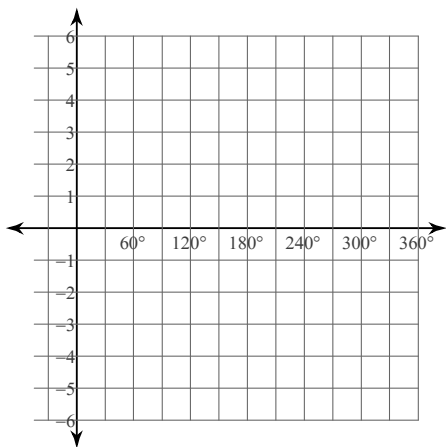
$$211) y = -1 + 3\tan\left(\frac{\theta}{3} - 135\right)$$



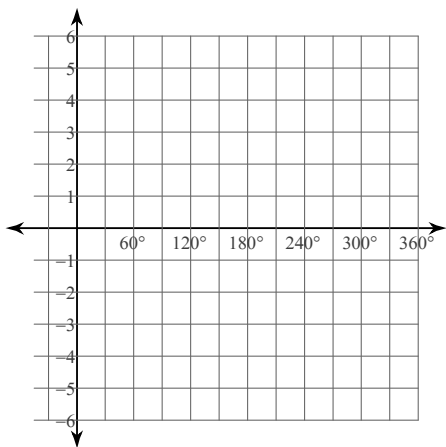
$$212) y = \frac{1}{2}\tan\left(\frac{\theta}{2} - 300\right) + 1$$



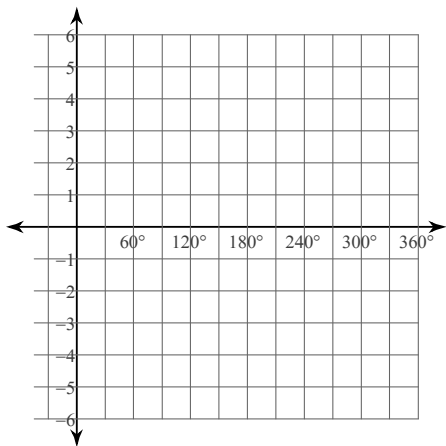
$$213) y = 4\sin(2\theta + 60) - 2$$



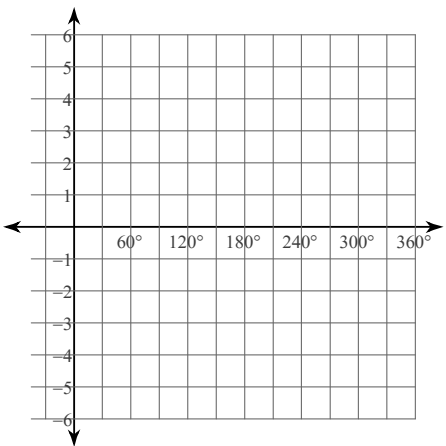
$$214) y = 4\tan(2\theta + 150) - 1$$



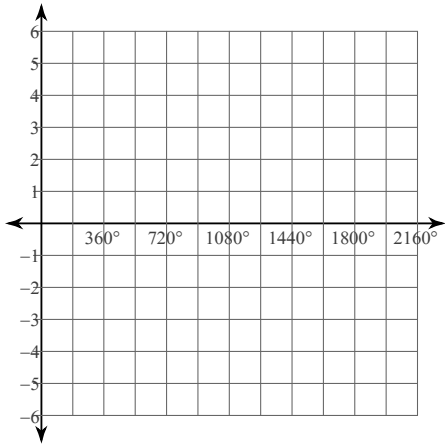
$$215) y = 1 + 4\sin(4\theta + 150)$$



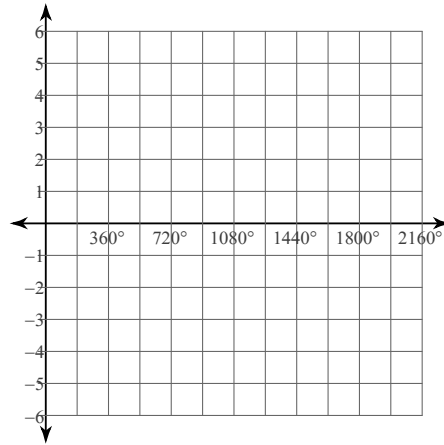
$$216) y = -2 + 3\cos(2\theta - 60)$$



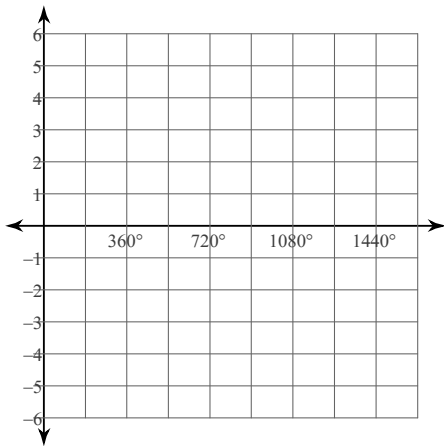
$$217) y = \frac{1}{2} \sin\left(\frac{\theta}{4} + 210\right) - 2$$



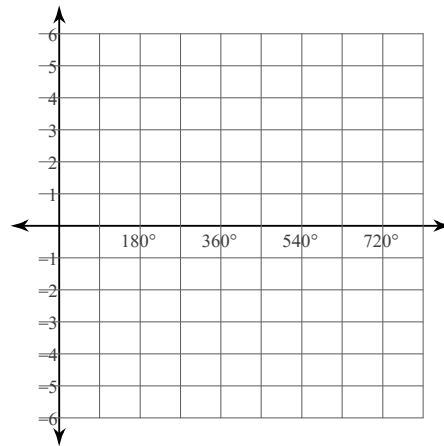
$$218) y = 3 \cos\left(\frac{\theta}{4} + 120\right) + 1$$



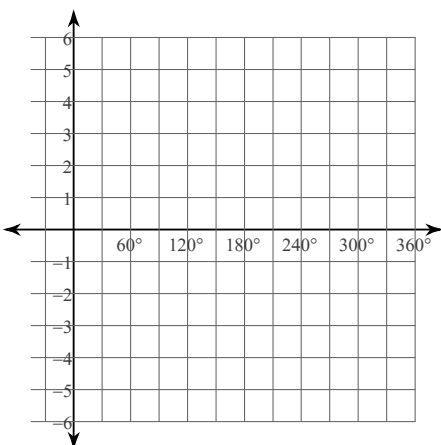
$$219) y = \frac{1}{2} \cos\left(\frac{\theta}{3} - 270\right) - 2$$



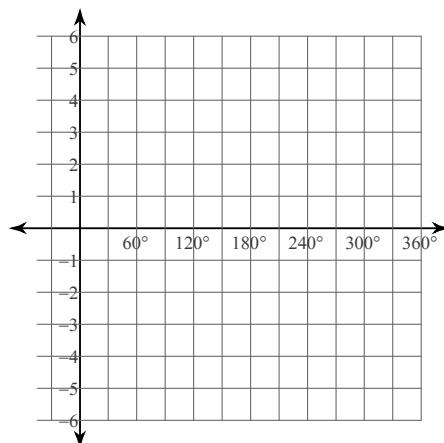
$$220) y = \cot\left(\frac{\theta}{3} + 60\right)$$



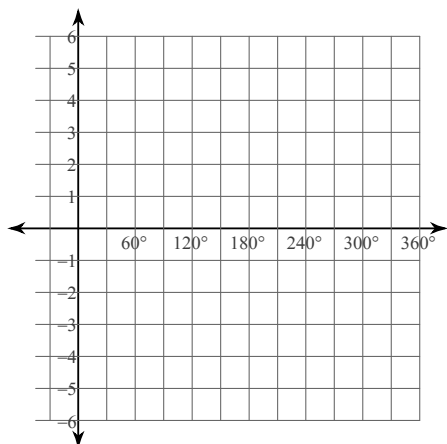
$$221) y = \cot(\theta - 90)$$



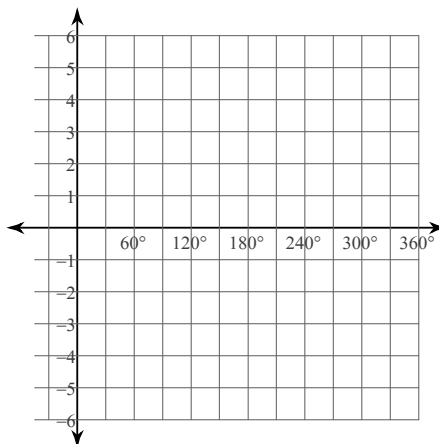
$$222) y = \frac{1}{2} \tan(2\theta + 120) + 2$$



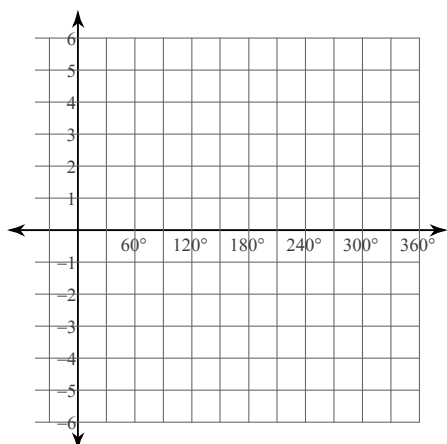
$$223) y = \frac{1}{2} \tan(2\theta + 90) + 2$$



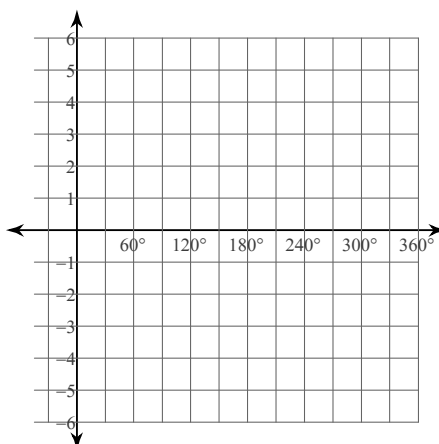
$$224) y = 3 \sin(4\theta + 90) - 2$$



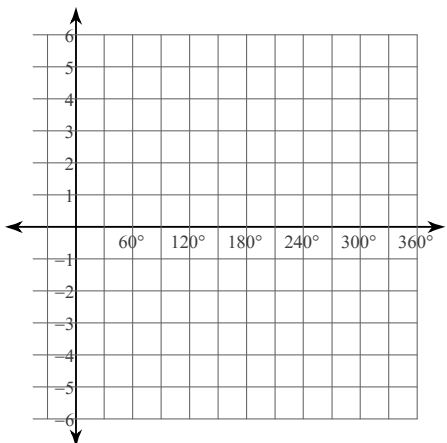
$$225) y = -1 + 2 \tan(2\theta - 240)$$



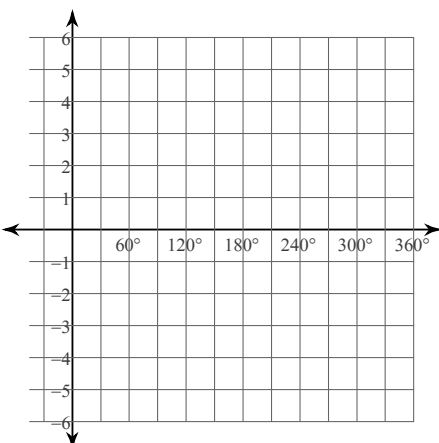
$$226) y = -1 + 3 \sin(4\theta - 60)$$



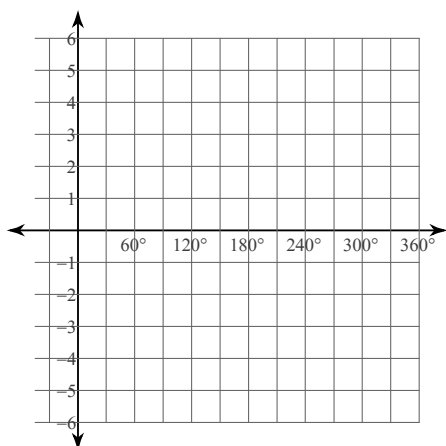
$$227) y = 3 \cos(4\theta + 90) + 2$$



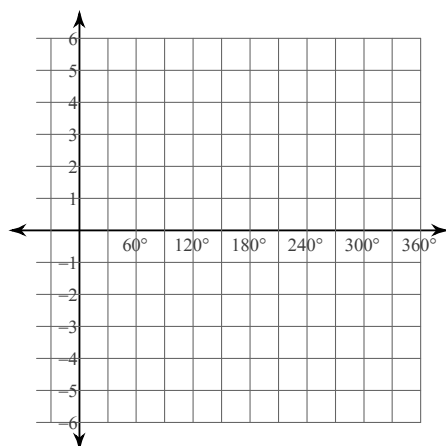
$$228) y = \frac{1}{2} \cos(3\theta - 120) + 2$$



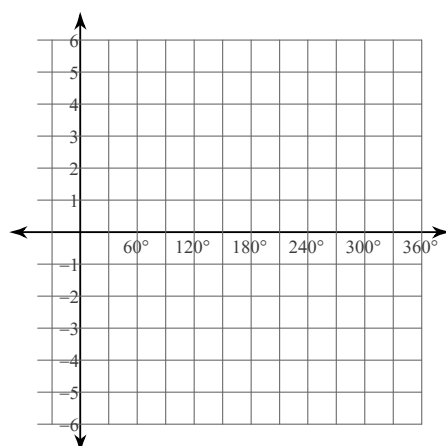
$$229) y = \frac{1}{2} \cos(4\theta + 120) + 1$$



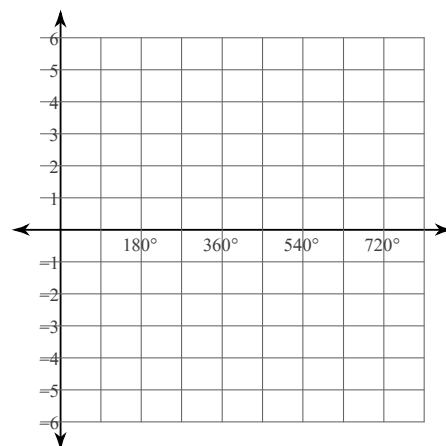
$$230) y = 2 + \frac{1}{2} \cos(4\theta + 150)$$



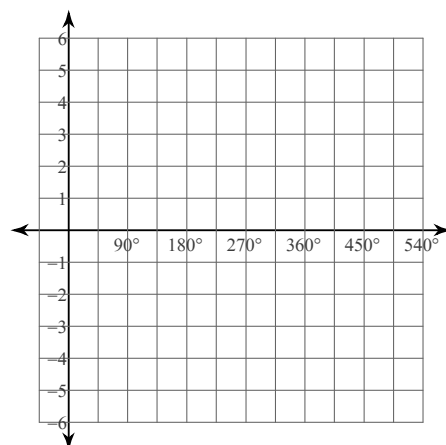
$$231) y = 4 \tan(\theta + 60) + 2$$



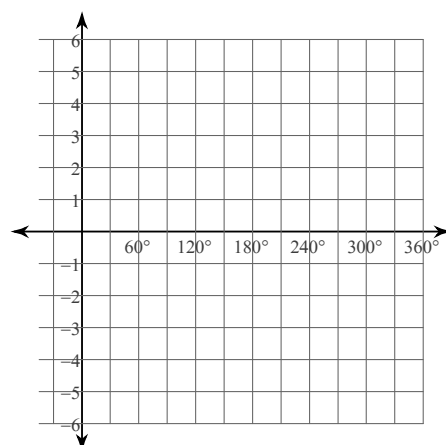
$$232) y = -1 + 4 \cot\left(\frac{\theta}{3} + 90\right)$$



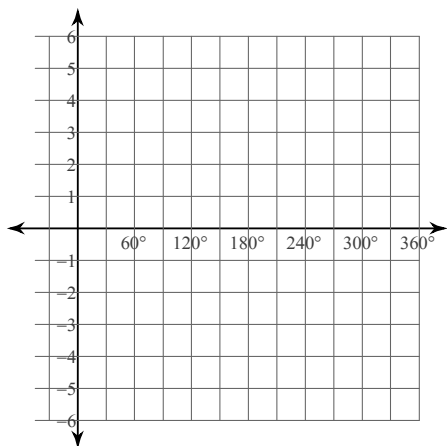
$$233) y = 2 \cot\left(\frac{\theta}{2} + 30\right) - 1$$



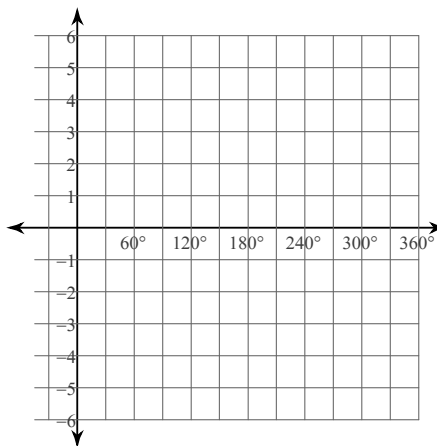
$$234) y = 4 \tan(\theta - 330) + 1$$



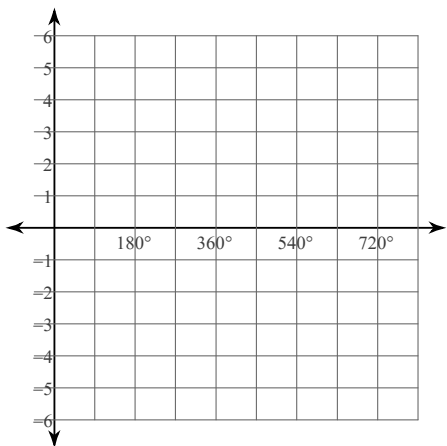
$$235) y = \frac{1}{2} \sin(3\theta + 120) - 2$$



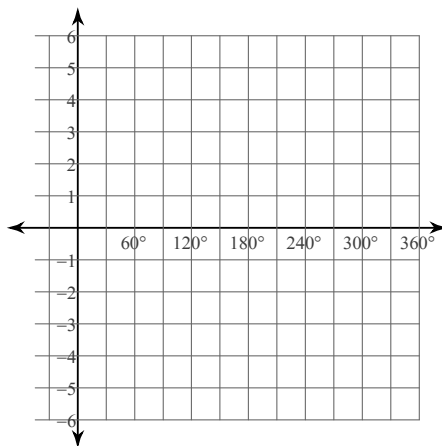
$$236) y = 3 \sin(2\theta + 240) + 2$$



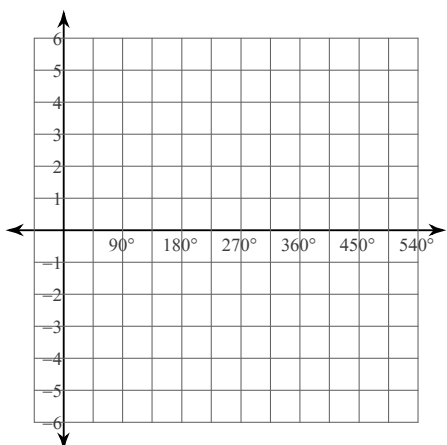
$$237) y = 4 \cot\left(\frac{\theta}{3} - 90\right) + 1$$



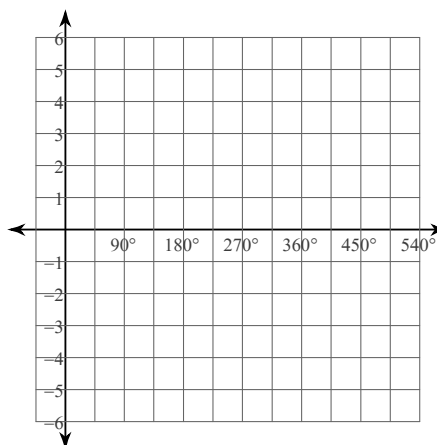
$$238) y = \frac{1}{2} \cos(4\theta + 60)$$



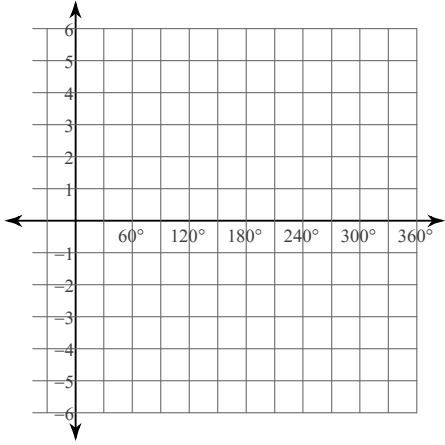
$$239) y = 3 \cot\left(\frac{\theta}{2} - 45\right) - 2$$



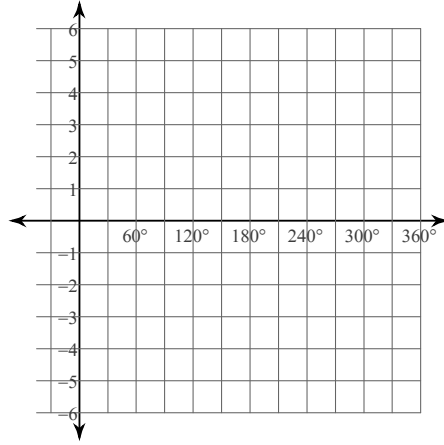
$$240) y = 4 \sin \theta$$



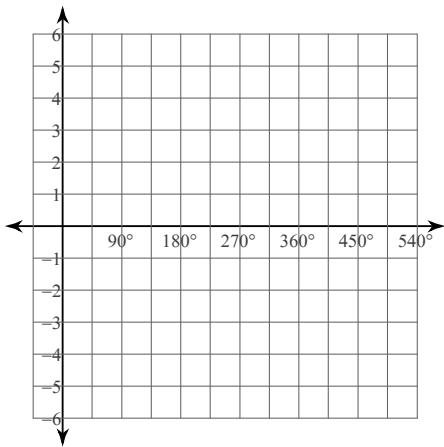
$$241) y = 3\cos 3\theta + 2$$



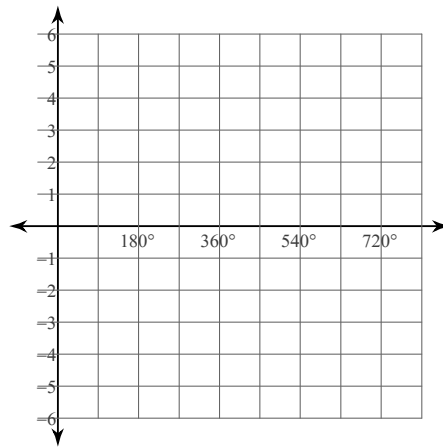
$$242) y = 2\cos(4\theta - 120) - 2$$



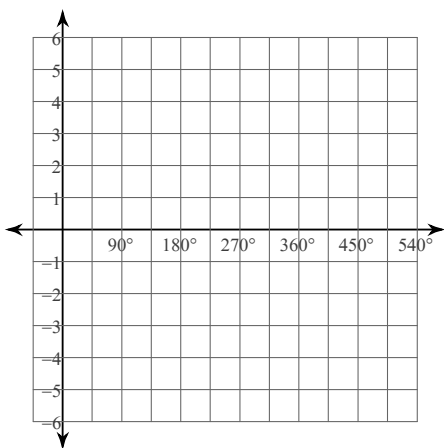
$$243) y = 3\tan\left(\frac{\theta}{2} + 60\right) - 2$$



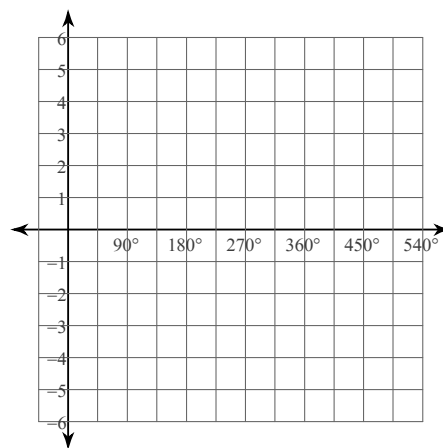
$$244) y = \frac{1}{2}\cot\left(\frac{\theta}{3} + 270\right) + 2$$



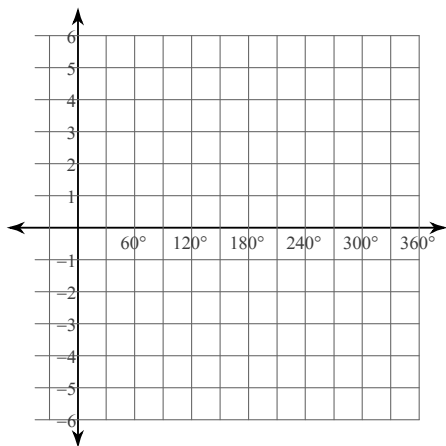
$$245) y = 4\tan\left(\frac{\theta}{2} - 60\right) - 1$$



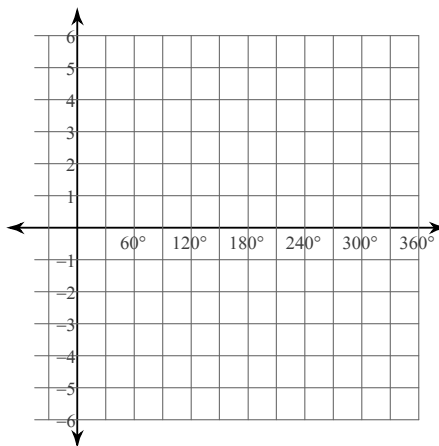
$$246) y = \frac{1}{2}\sin(\theta + 45) - 1$$



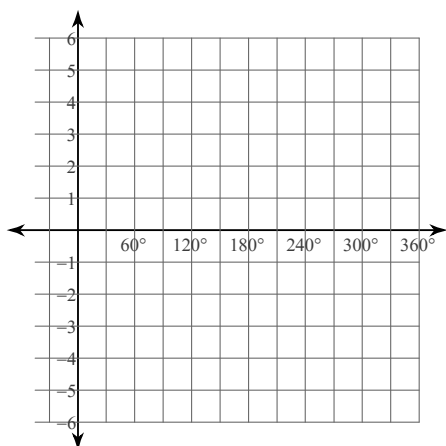
$$247) y = 4\cos(2\theta + 225) + 1$$



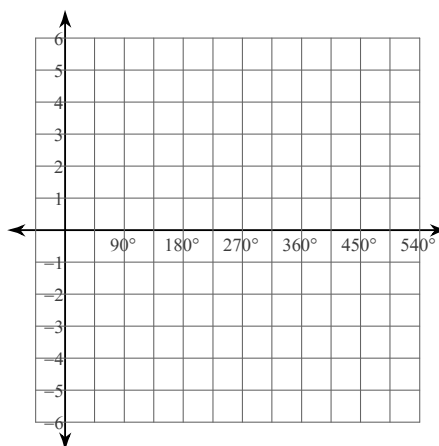
$$248) y = 4\sin(4\theta + 30) + 1$$



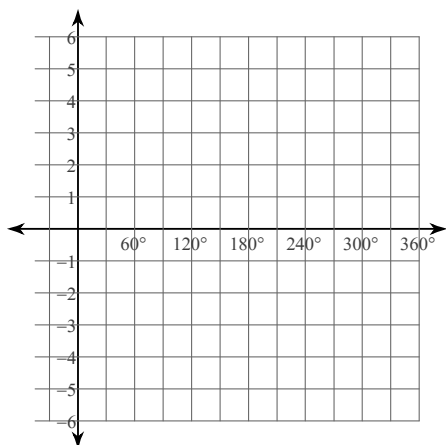
$$249) y = \frac{1}{2}\cos(2\theta - 90) + 1$$



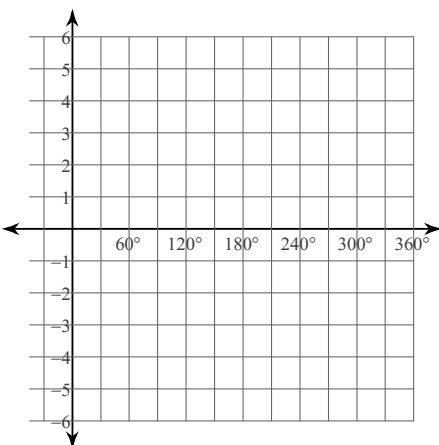
$$250) y = \frac{1}{2}\tan\left(\frac{\theta}{2} + 135\right) + 2$$



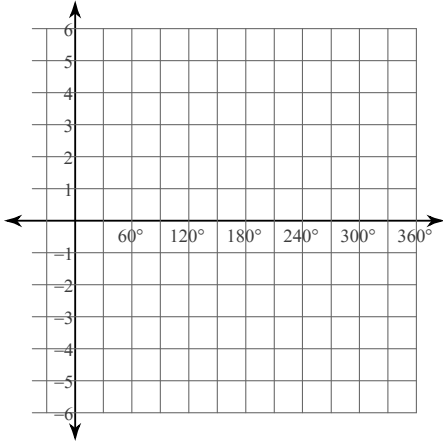
$$251) y = 2\cos(3\theta + 30) - 1$$



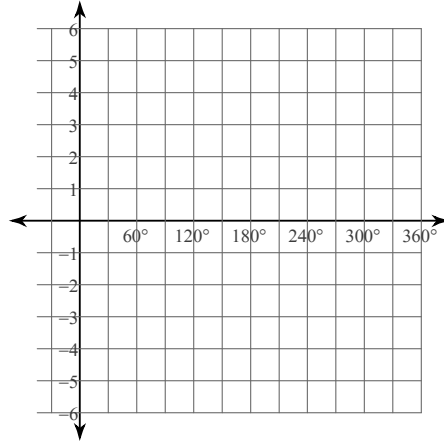
$$252) y = 2\cos(4\theta - 60) - 1$$



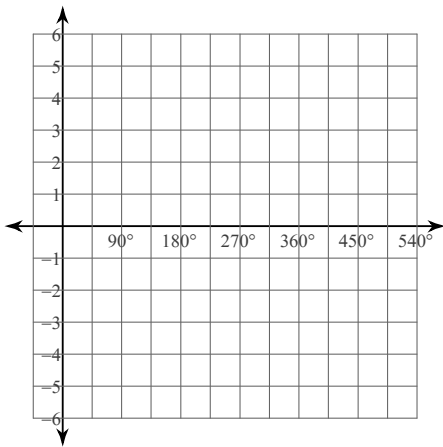
253) $y = \tan \theta + 2$



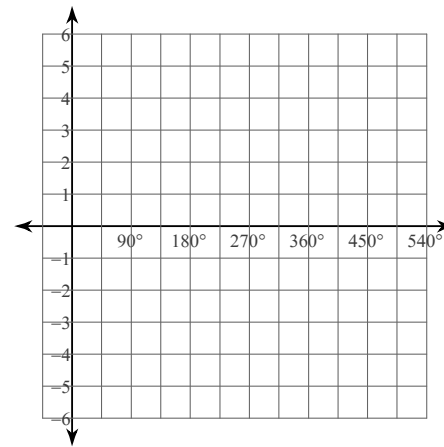
254) $y = 4\cot(2\theta - 60) + 2$



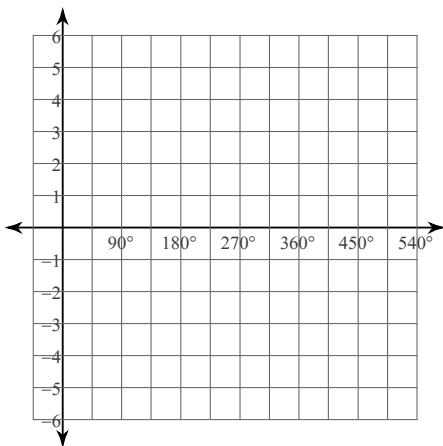
255) $y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 135\right) - 1$



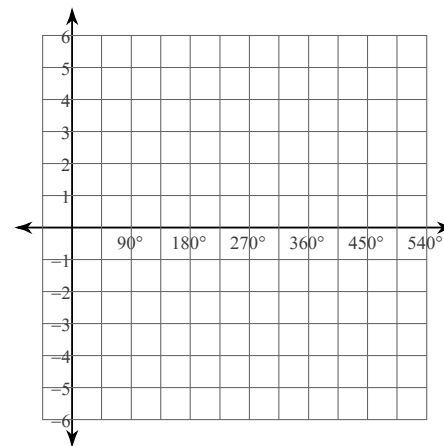
256) $y = 3\tan\left(\frac{\theta}{2} + 135\right) + 2$



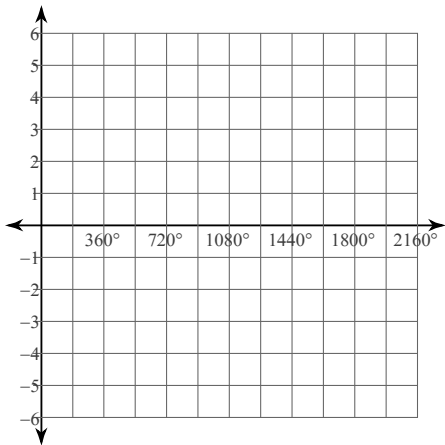
257) $y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 150\right) + 1$



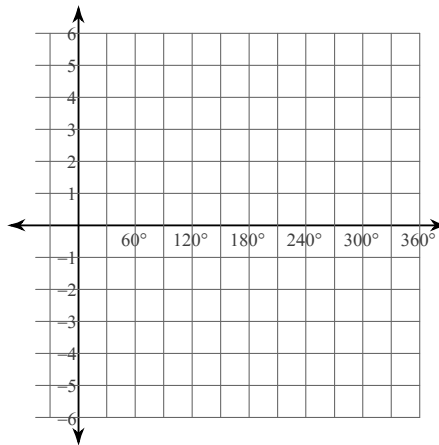
258) $y = 1 + 3\tan\left(\frac{\theta}{2} + 60\right)$



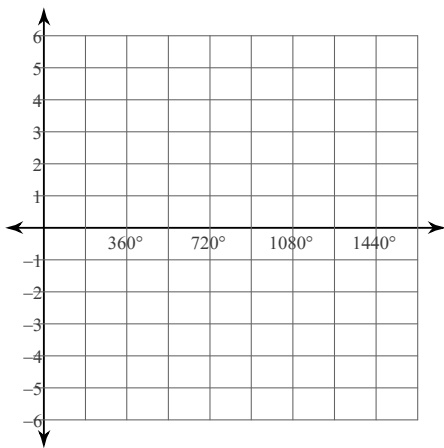
$$259) y = 4\sin\left(\frac{\theta}{4} + 120\right) - 1$$



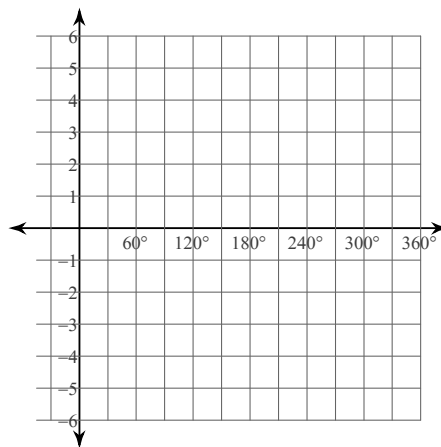
$$260) y = \frac{1}{2}\sin 4\theta$$



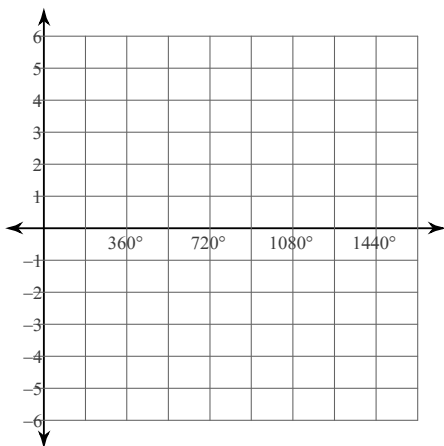
$$261) y = 2\cos\left(\frac{\theta}{3} - 60\right) + 2$$



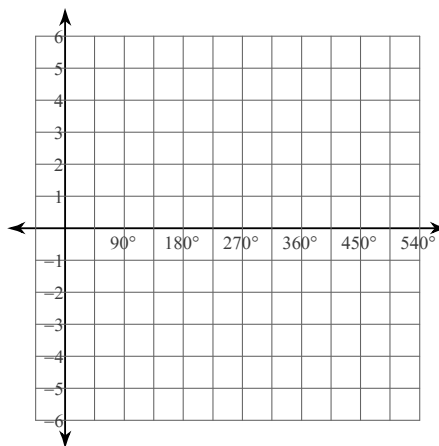
$$262) y = 4\cos(2\theta - 60) + 2$$



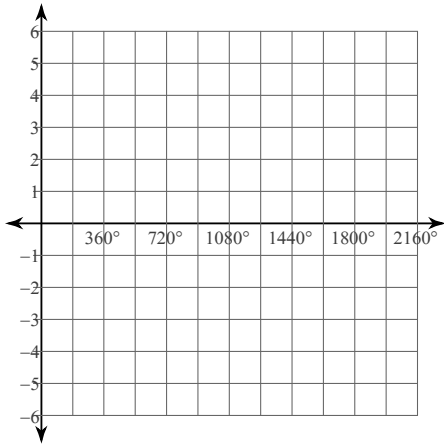
$$263) y = 3\cos\left(\frac{\theta}{3} + 30\right) + 2$$



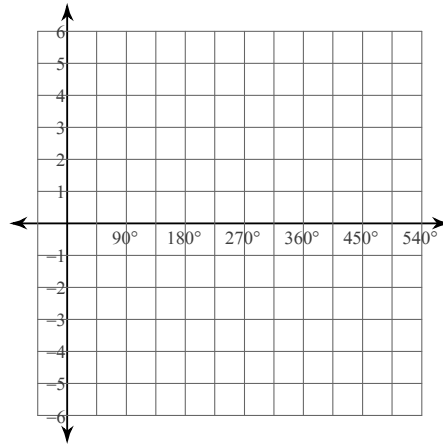
$$264) y = 3\tan\left(\frac{\theta}{2} + 120\right) - 2$$



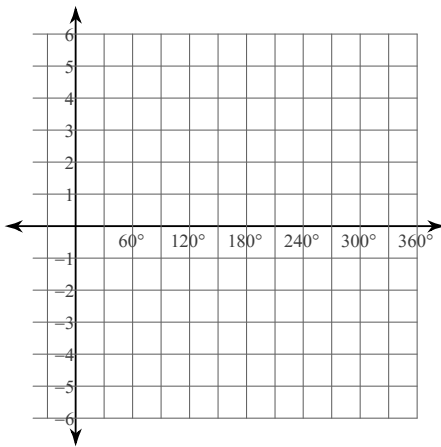
$$265) y = \frac{1}{2} \sin\left(\frac{\theta}{4} - 135\right) + 2$$



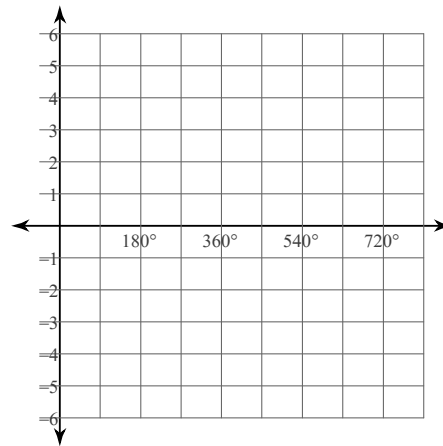
$$266) y = \cot\left(\frac{\theta}{2} + 90\right) - 2$$



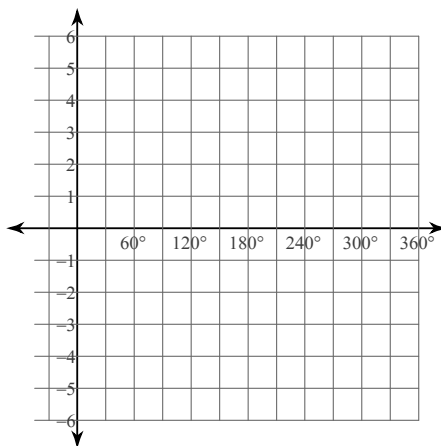
$$267) y = 3 \cot(2\theta - 30)$$



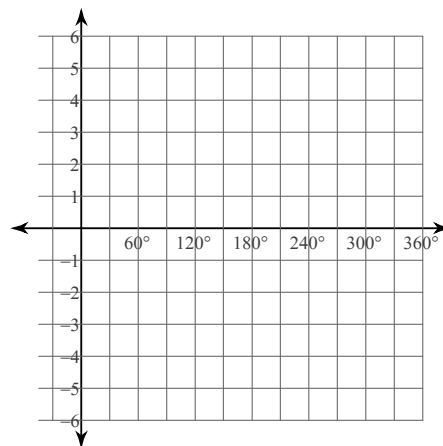
$$268) y = \frac{1}{2} \tan\left(\frac{\theta}{3} + 30\right) - 1$$



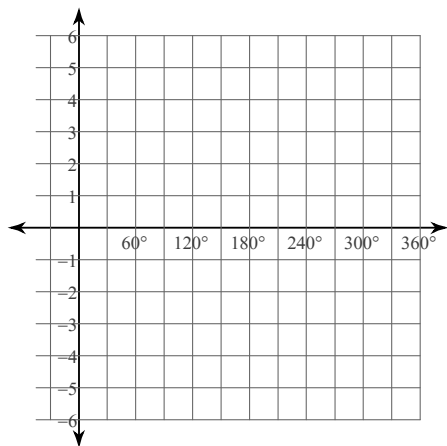
$$269) y = \frac{1}{2} \tan(2\theta + 45) + 2$$



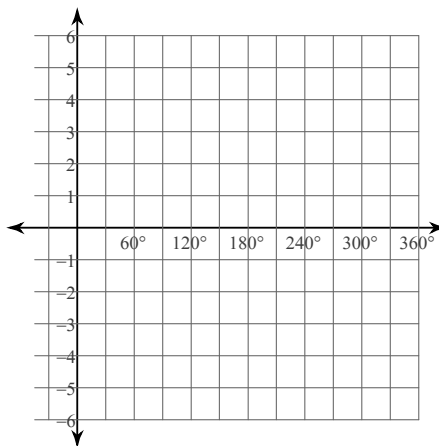
$$270) y = \frac{1}{2} \sin(2\theta + 30) + 1$$



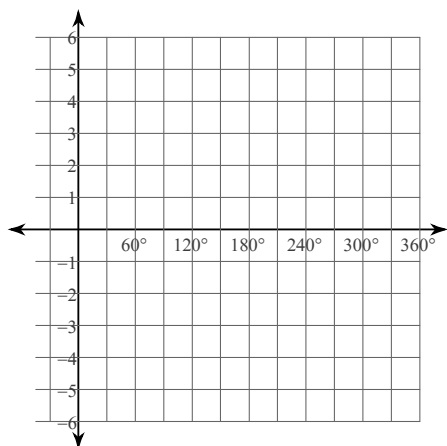
$$271) y = 3\cos(2\theta - 30) + 2$$



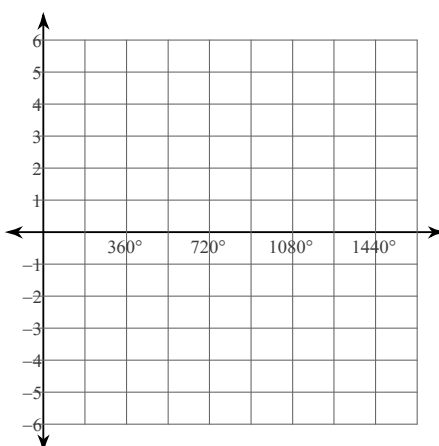
$$272) y = 3\sin(4\theta - 135) - 2$$



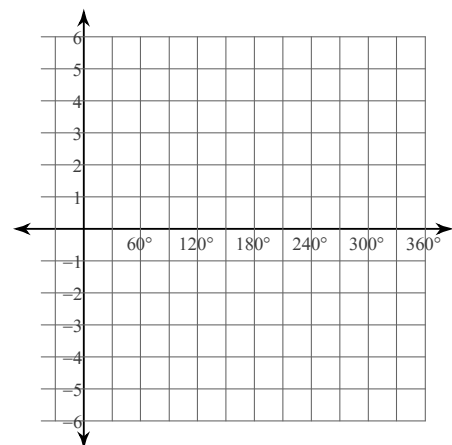
$$273) y = -2 + 2\cos(4\theta - 60)$$



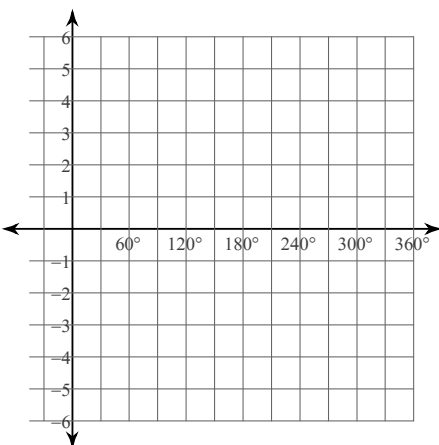
$$274) y = 2\cos\left(\frac{\theta}{3} + 45\right) - 2$$



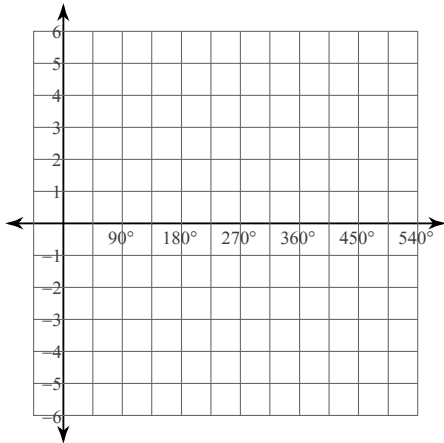
$$275) y = 4\sin(2\theta - 135) + 1$$



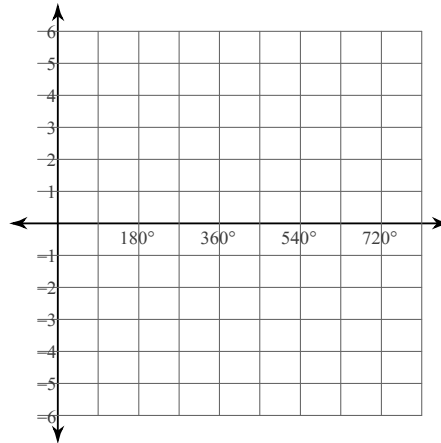
$$276) y = 4\cos(2\theta + 120) + 2$$



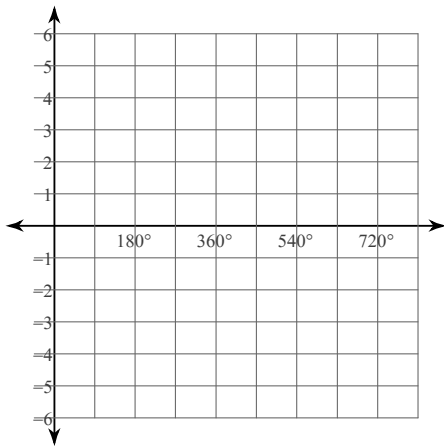
$$277) y = -1 + 3\cot\left(\frac{\theta}{2} - 30\right)$$



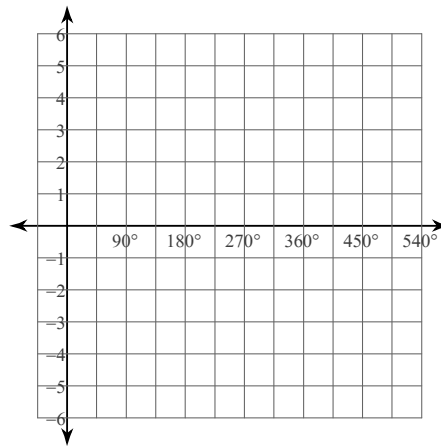
$$278) y = \frac{1}{2}\tan\left(\frac{\theta}{3} + 135\right) + 2$$



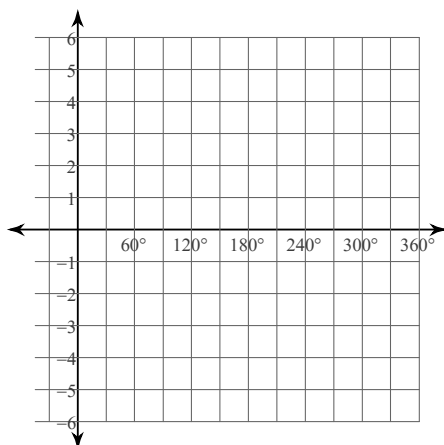
$$279) y = 2\cot\left(\frac{\theta}{3} + 30\right) + 1$$



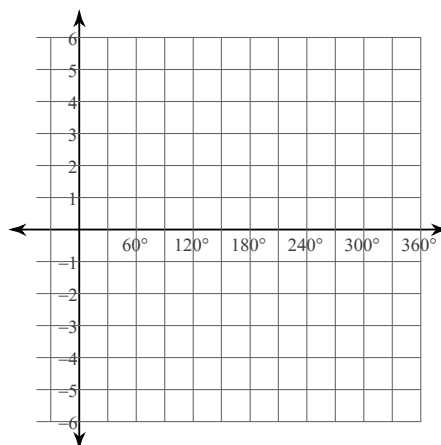
$$280) y = 2\tan\left(\frac{\theta}{2} - 150\right) - 2$$



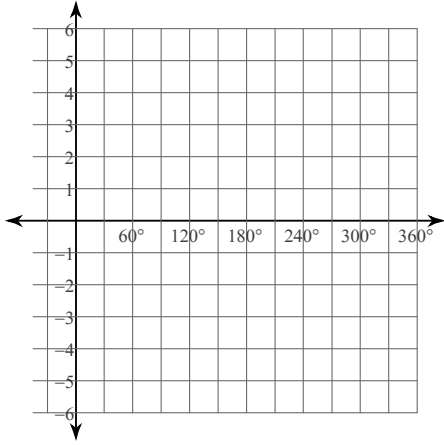
$$281) y = 2\sin(3\theta - 150) - 2$$



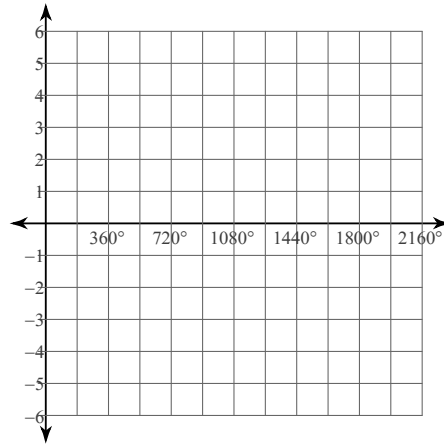
$$282) y = 2\sin(4\theta - 90) - 2$$



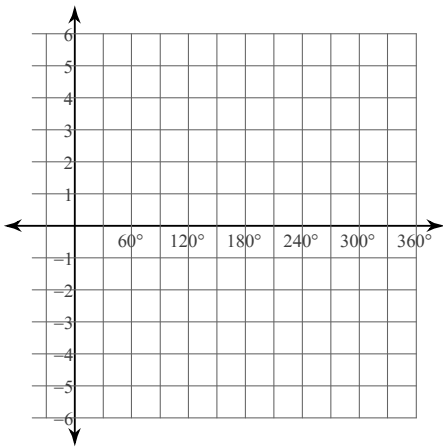
$$283) y = 2 + 4\cos(2\theta + 225^\circ)$$



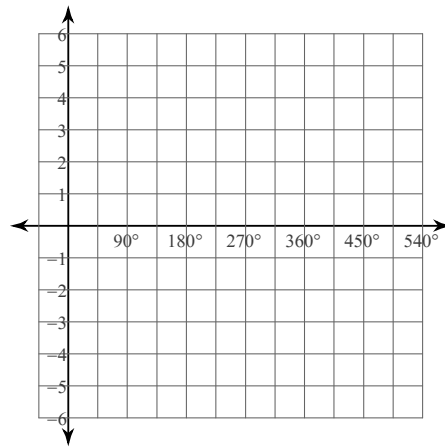
$$284) y = 1 + \frac{1}{2}\cos\left(\frac{\theta}{4} - 300^\circ\right)$$



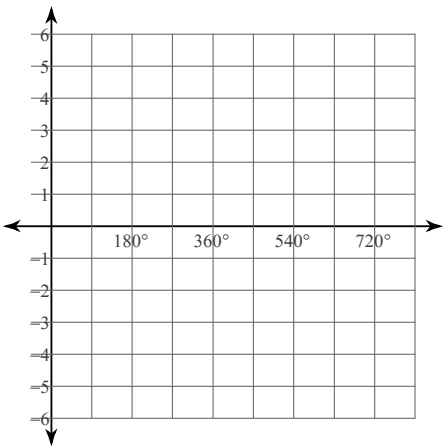
$$285) y = \frac{1}{2}\sin(3\theta + 225^\circ) + 1$$



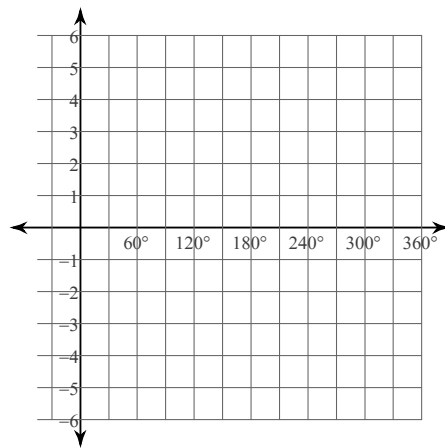
$$286) y = \cot\frac{\theta}{2}$$



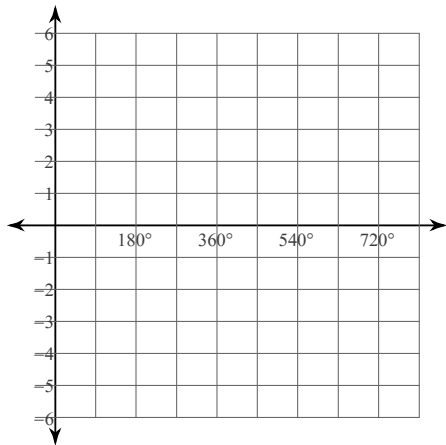
$$287) y = 3\cot\left(\frac{\theta}{3} + 120^\circ\right) + 1$$



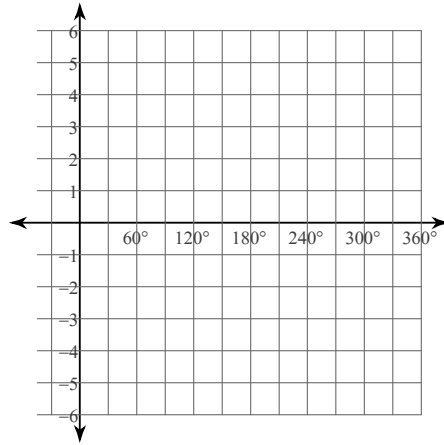
$$288) y = 2\cos(2\theta + 150^\circ) - 2$$



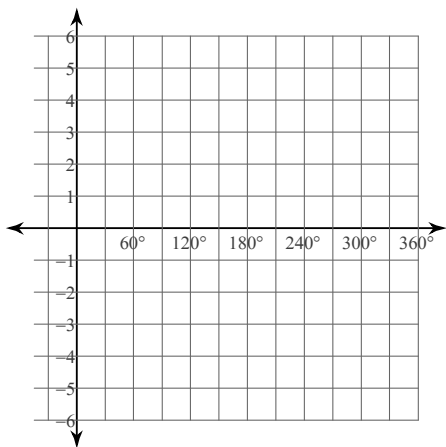
$$289) y = \frac{1}{2} \tan\left(\frac{\theta}{3} - 135\right) - 2$$



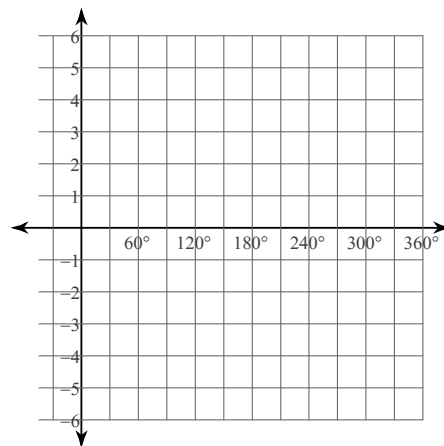
$$290) y = 2 \cot(2\theta + 135) - 1$$



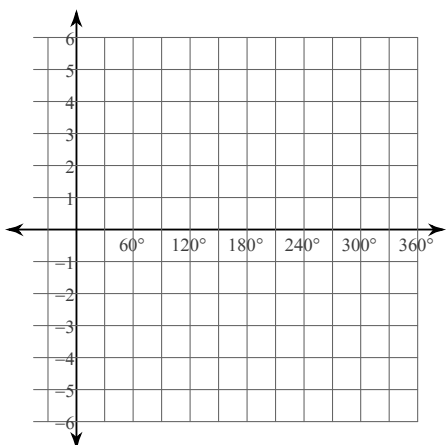
$$291) y = 2 \sin(4\theta - 135) - 1$$



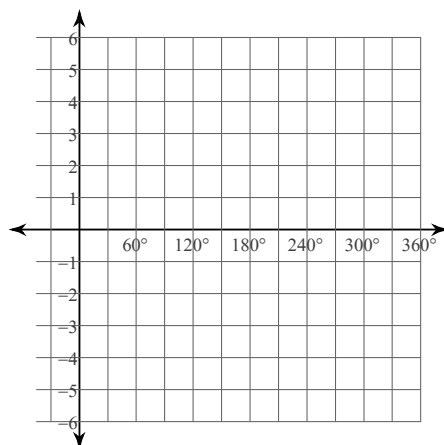
$$292) y = -1 + \frac{1}{2} \tan(2\theta + 135)$$



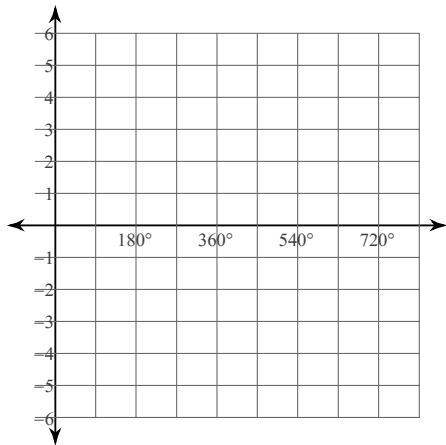
$$293) y = -1 + 3 \sin(2\theta + 120)$$



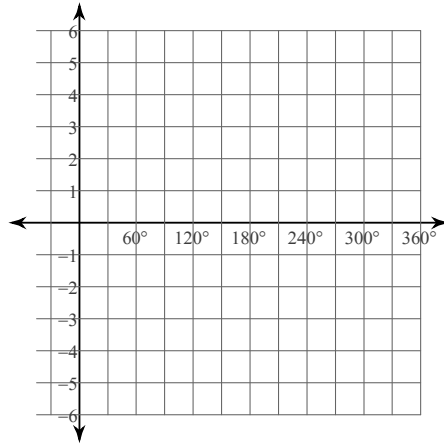
$$294) y = 1 + 4 \cos(2\theta - 60)$$



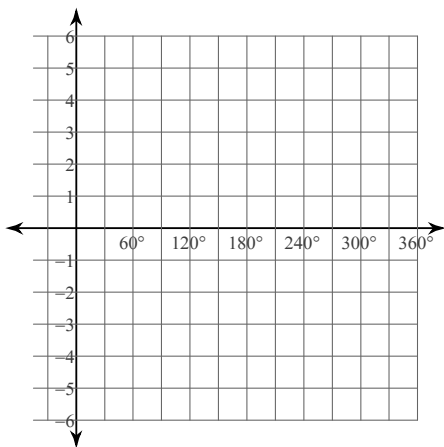
295) $y = 1 + 2\tan\left(\frac{\theta}{3} - 300\right)$



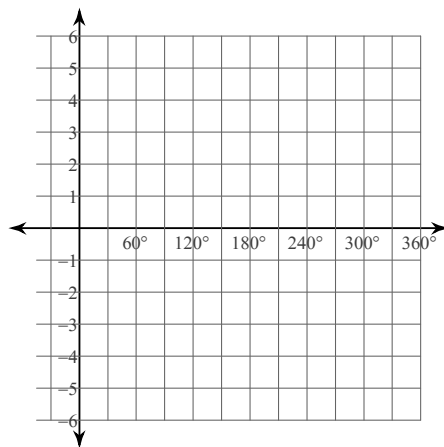
296) $y = 4\cos(2\theta - 240) + 2$



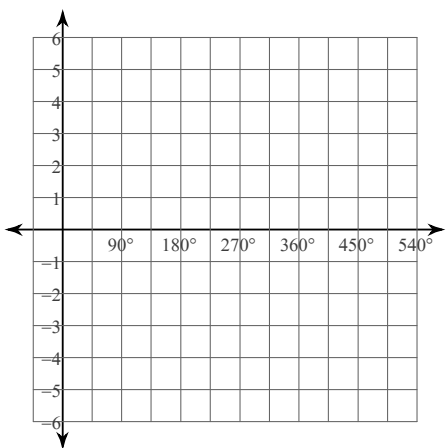
297) $y = 3\cos(3\theta - 120)$



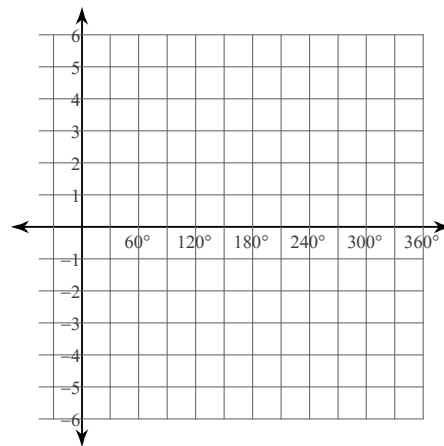
298) $y = 1 + 4\cos(2\theta - 90)$



299) $y = 3\cot\left(\frac{\theta}{2} - 30\right) - 2$



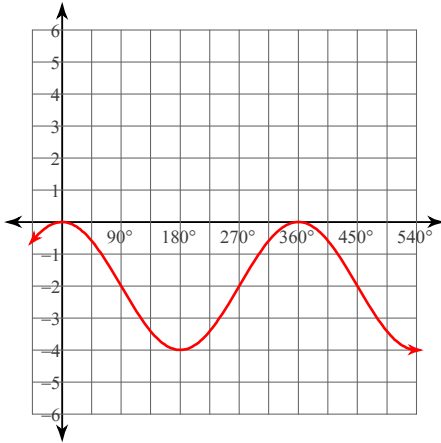
300) $y = 4\tan(\theta - 60) - 1$



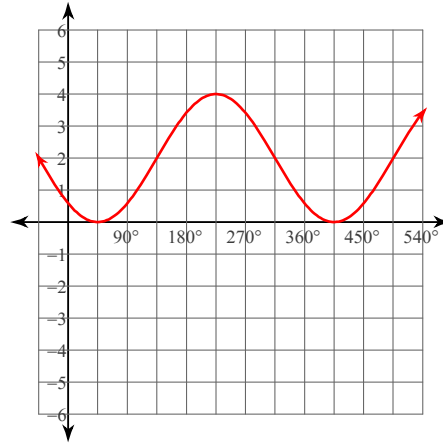
Graphing trigonometric functions

Graph sine and cosine functions

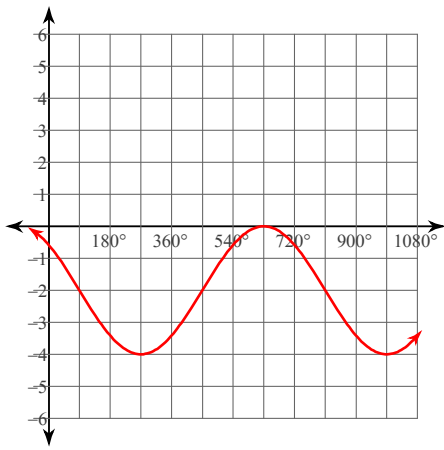
1) $y = -2 + 2\cos \theta$



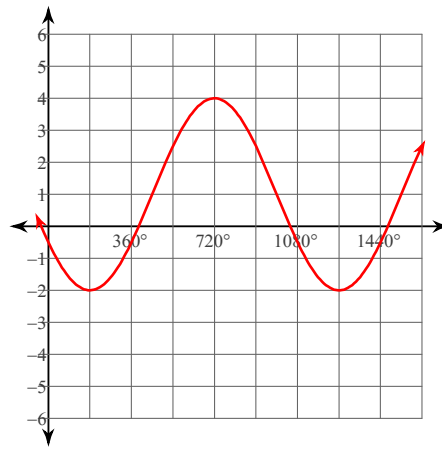
2) $y = 2 + 2\sin(\theta - 135)$



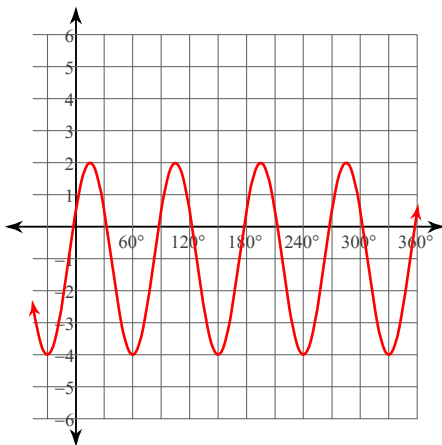
$$3) y = 2\cos\left(\frac{\theta}{2} + 45\right) - 2$$



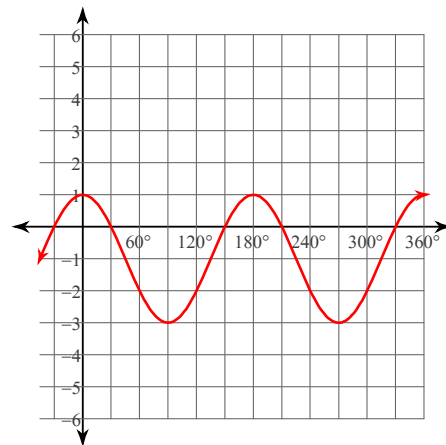
$$4) y = 3\sin\left(\frac{\theta}{3} - 150\right) + 1$$



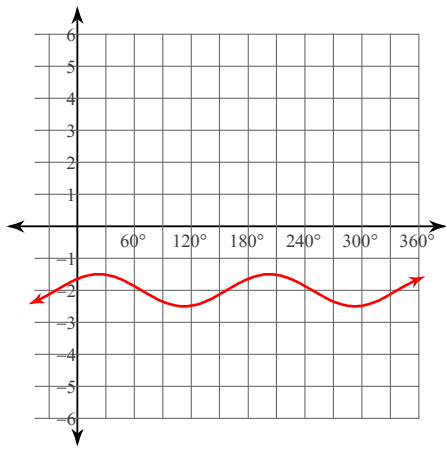
$$5) y = 3\cos(4\theta - 60) - 1$$



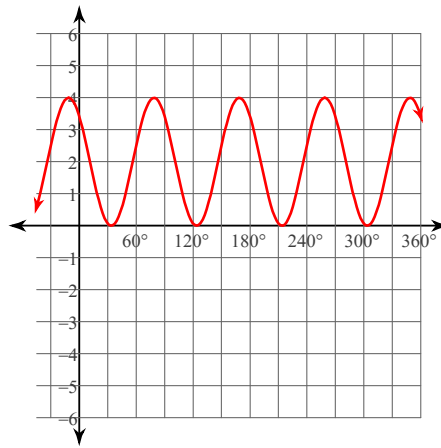
$$6) y = -1 + 2\cos 2\theta$$



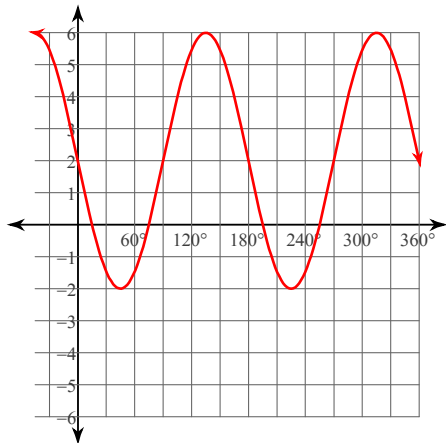
$$7) y = -2 + \frac{1}{2} \cos(2\theta - 45)$$



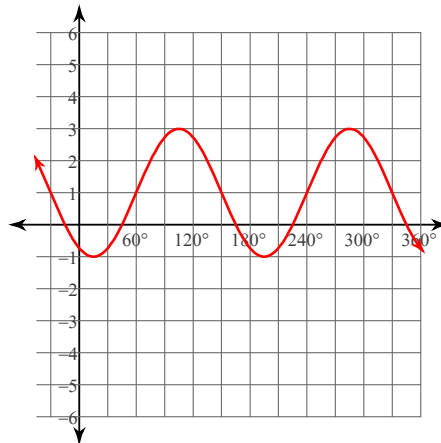
$$8) y = 2 \sin(4\theta + 135) + 2$$



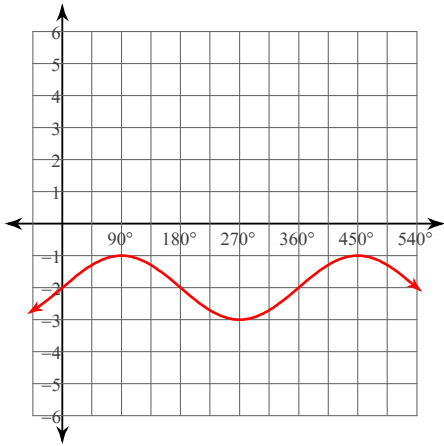
$$9) y = 4 \cos(2\theta + 90) + 2$$



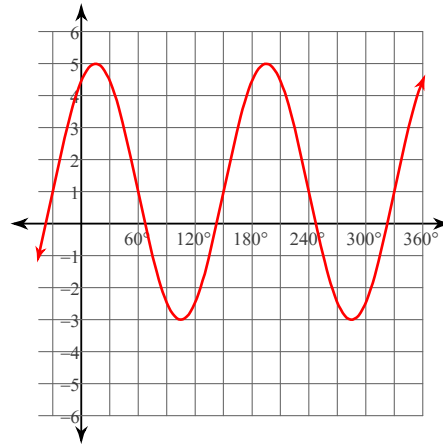
$$10) y = 2 \sin(2\theta - 120) + 1$$



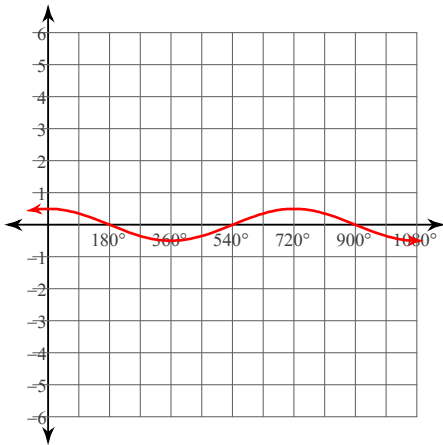
11) $y = \sin \theta - 2$



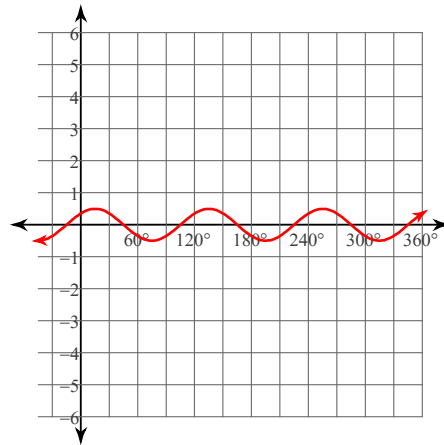
12) $y = 4\sin(2\theta + 60) + 1$



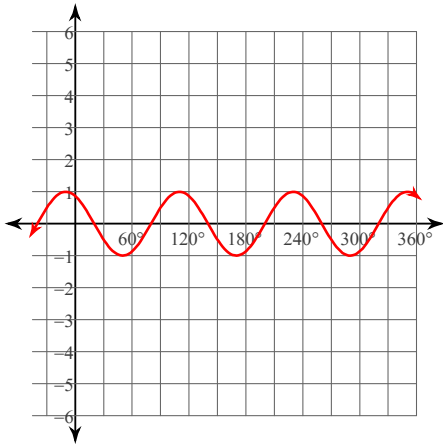
13) $y = \frac{1}{2}\sin\left(\frac{\theta}{2} + 90\right)$



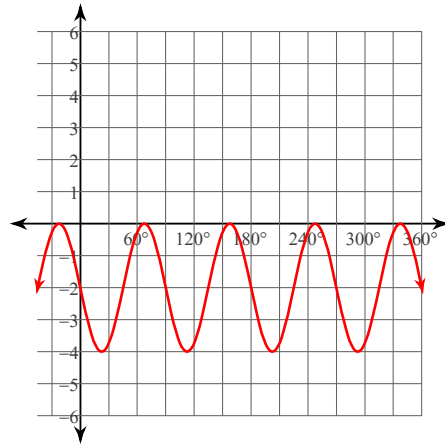
14) $y = \frac{1}{2}\cos(3\theta - 45)$



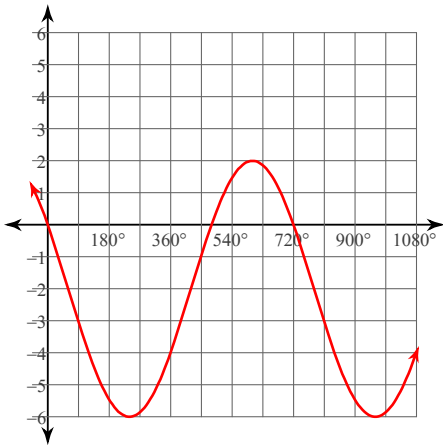
15) $y = \cos(3\theta + 30)$



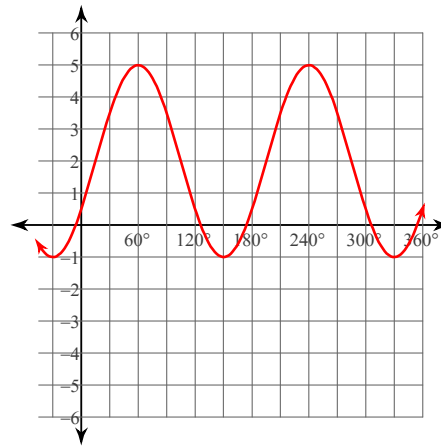
16) $y = 2\cos(4\theta + 90) - 2$



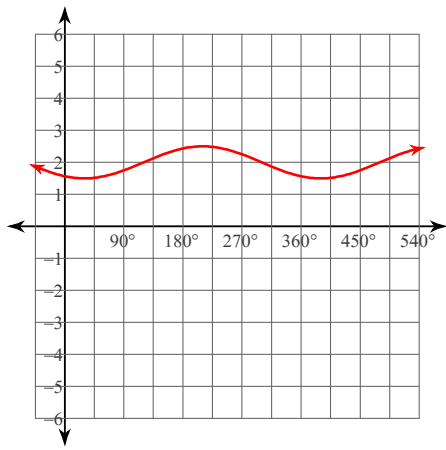
17) $y = 4\sin\left(\frac{\theta}{2} + 150\right) - 2$



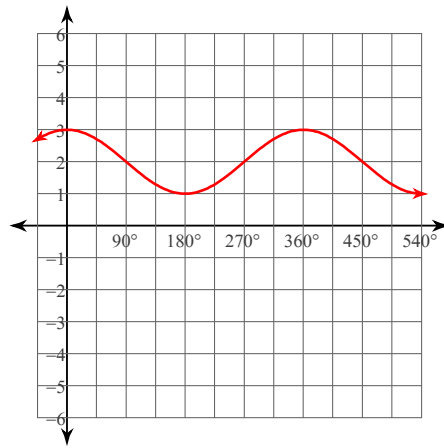
18) $y = 3\sin(2\theta - 30) + 2$



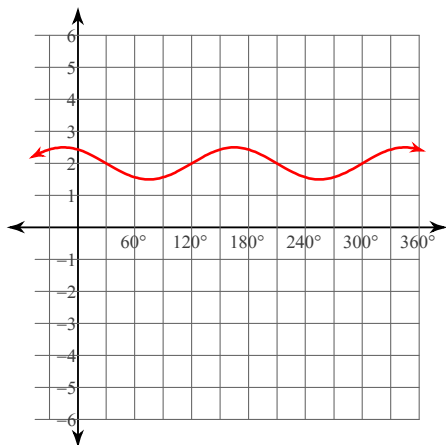
$$19) y = 2 + \frac{1}{2} \cos(\theta + 150)$$



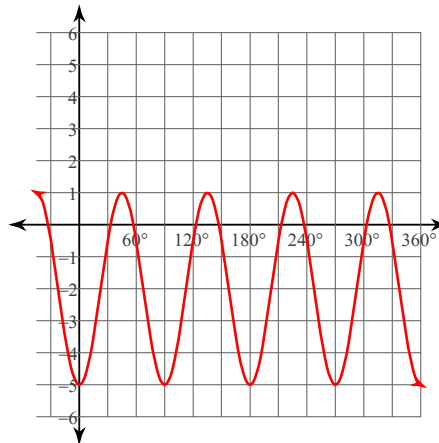
$$20) y = \cos \theta + 2$$



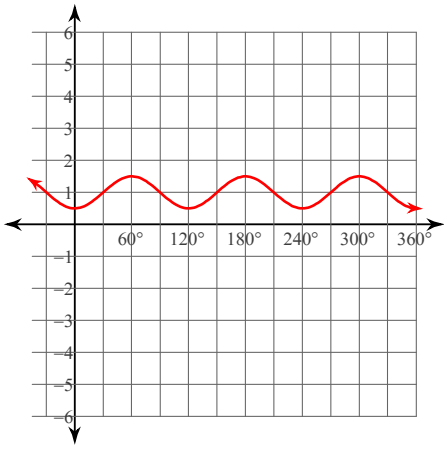
$$21) y = \frac{1}{2} \cos(2\theta - 330) + 2$$



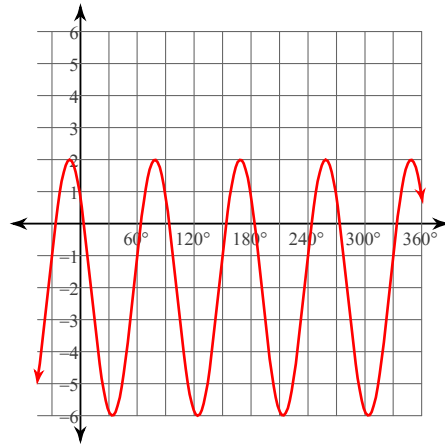
$$22) y = 3 \sin(4\theta - 90) - 2$$



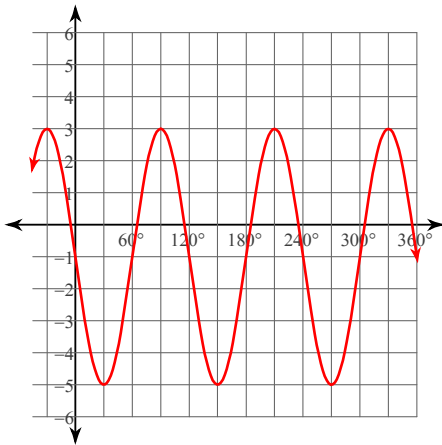
$$23) y = \frac{1}{2} \sin(3\theta - 90) + 1$$



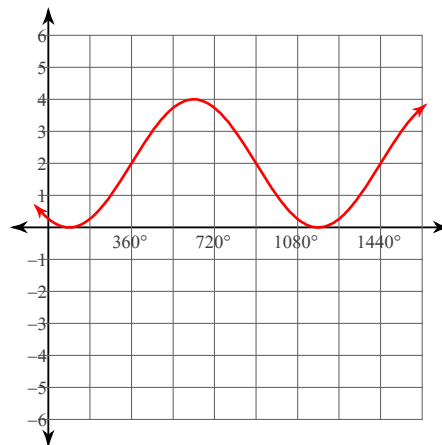
$$24) y = 4 \cos(4\theta + 45) - 2$$



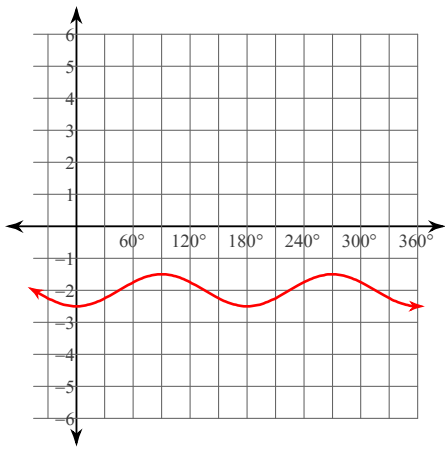
$$25) y = -1 + 4 \cos(3\theta + 90)$$



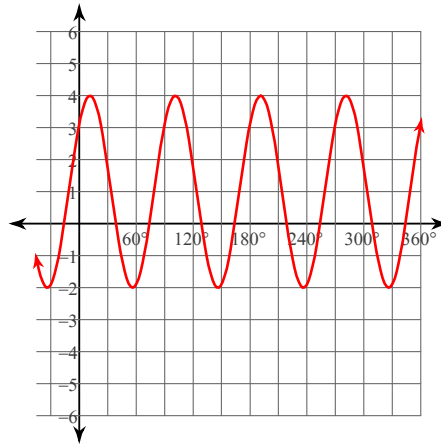
$$26) y = 2 \cos\left(\frac{\theta}{3} + 150\right) + 2$$



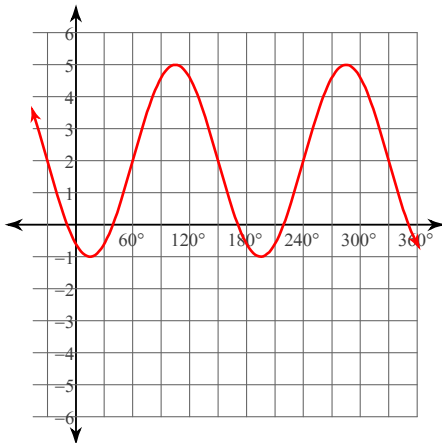
$$27) y = -2 + \frac{1}{2} \sin(2\theta + 270^\circ)$$



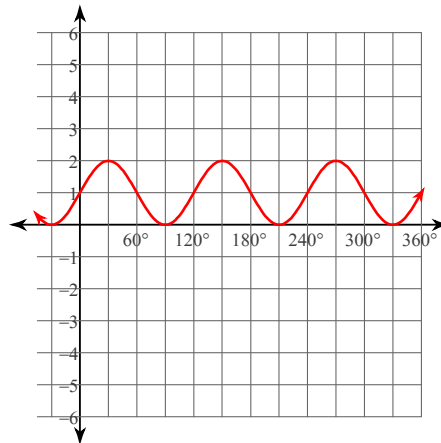
$$28) y = 1 + 3 \sin(4\theta + 45^\circ)$$



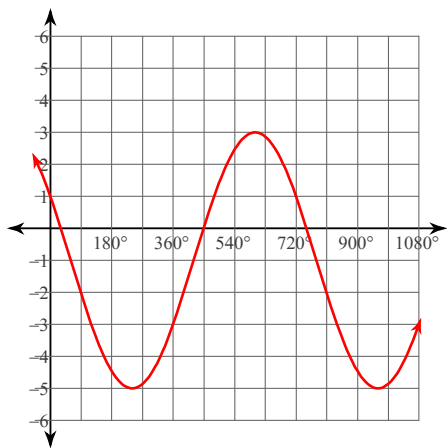
$$29) y = 3 \cos(2\theta + 150^\circ) + 2$$



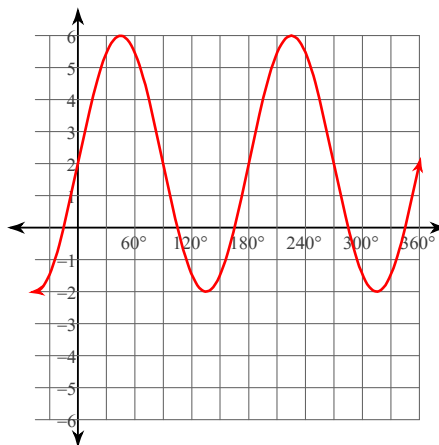
$$30) y = \sin 3\theta + 1$$



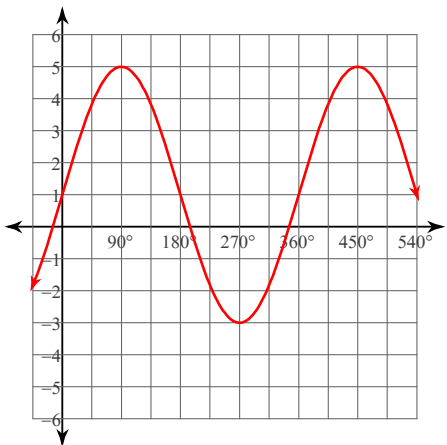
$$31) y = -1 + 4\sin\left(\frac{\theta}{2} + 150\right)$$



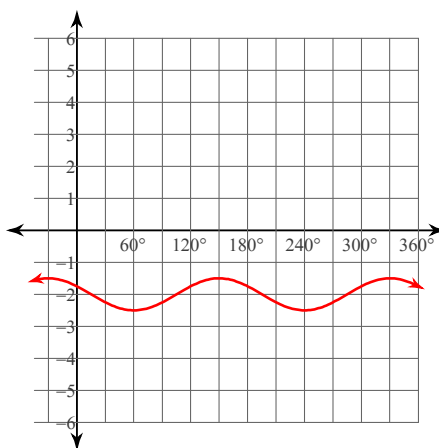
$$32) y = 4\sin 2\theta + 2$$



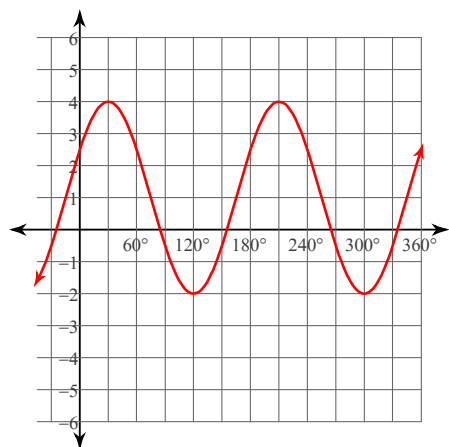
$$33) y = 4\sin \theta + 1$$



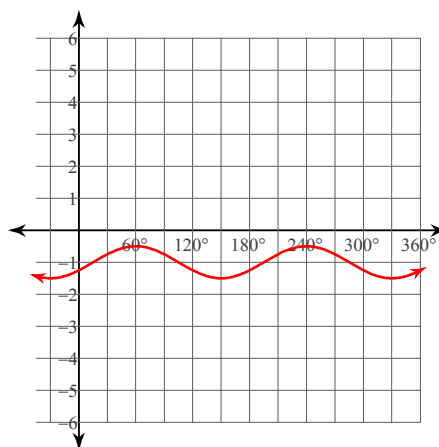
$$34) y = -2 + \frac{1}{2}\sin(2\theta + 150)$$



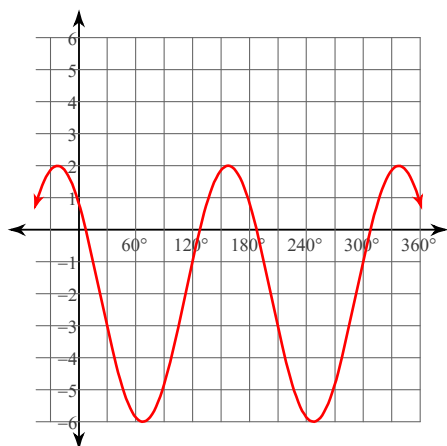
$$35) y = 1 + 3\sin(2\theta + 30)$$



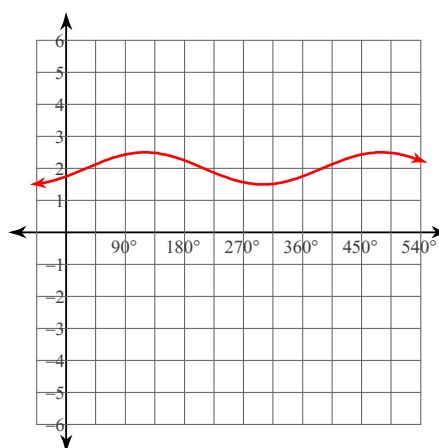
$$36) y = -1 + \frac{1}{2}\sin(2\theta - 30)$$



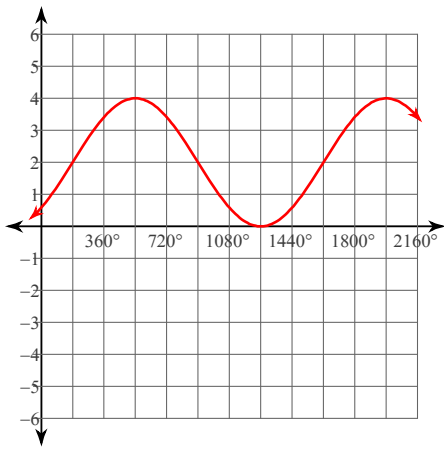
$$37) y = 4\cos(2\theta - 315) - 2$$



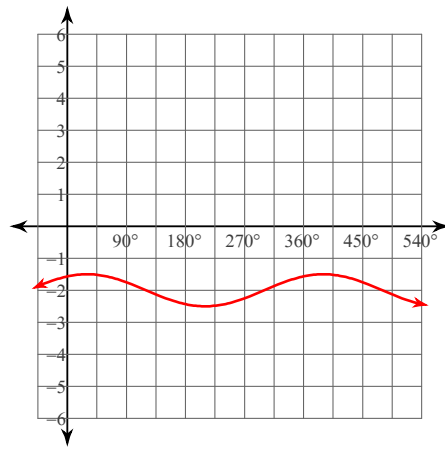
$$38) y = \frac{1}{2}\sin(\theta - 30) + 2$$



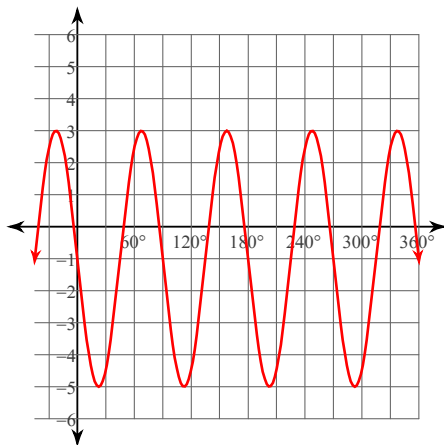
$$39) y = 2\sin\left(\frac{\theta}{4} + 315\right) + 2$$



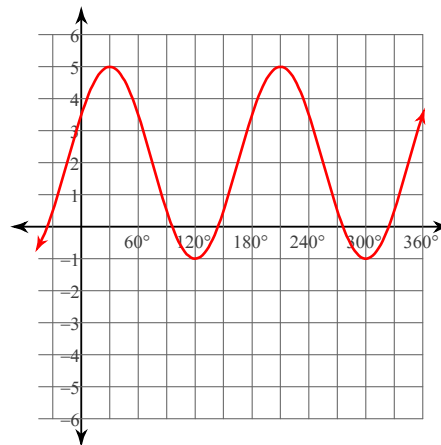
$$40) y = \frac{1}{2}\cos(\theta + 330) - 2$$



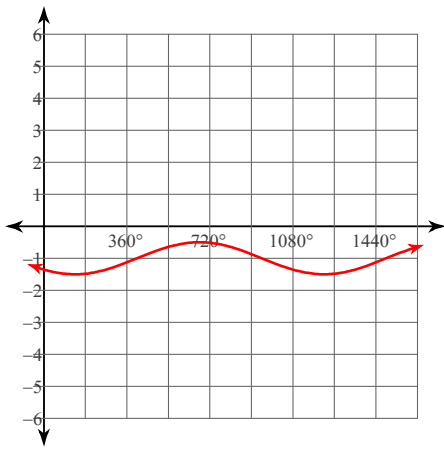
$$41) y = -1 + 4\cos(4\theta + 90)$$



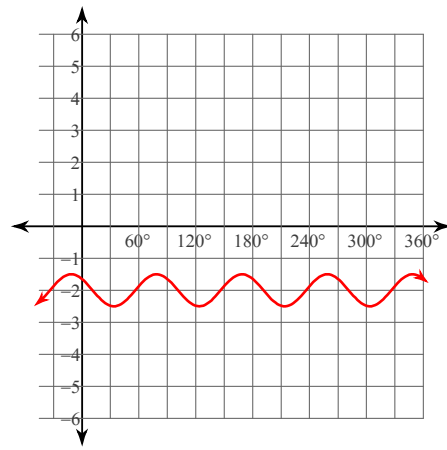
$$42) y = 3\sin(2\theta - 330) + 2$$



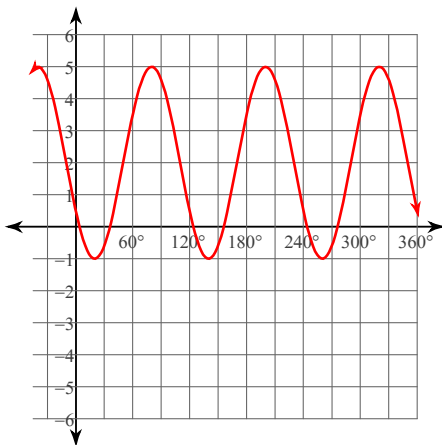
$$43) y = \frac{1}{2} \sin\left(\frac{\theta}{3} + 225\right) - 1$$



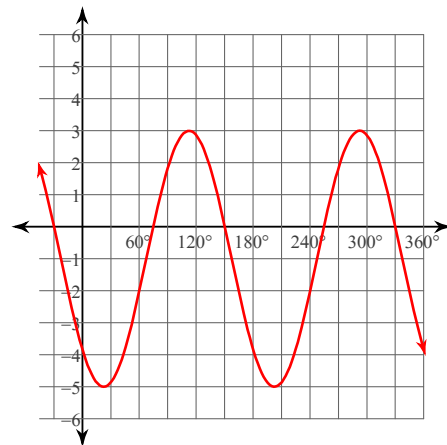
$$44) y = -2 + \frac{1}{2} \cos(4\theta + 45)$$



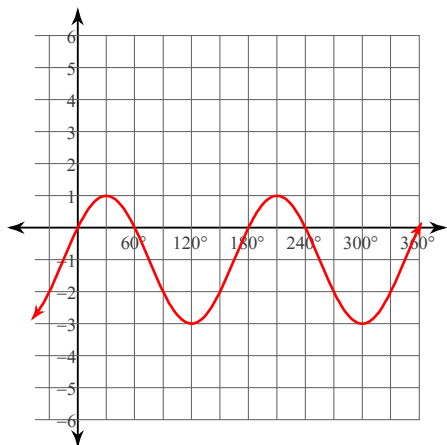
$$45) y = 3 \cos(3\theta + 120) + 2$$



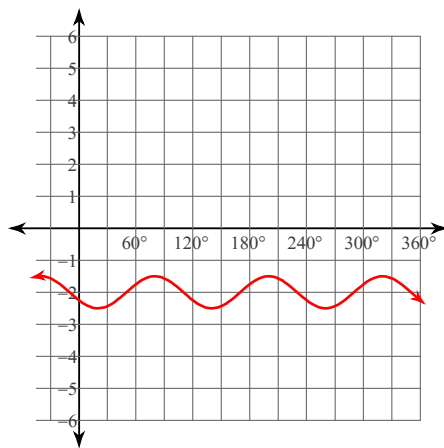
$$46) y = 4 \cos(2\theta - 225) - 1$$



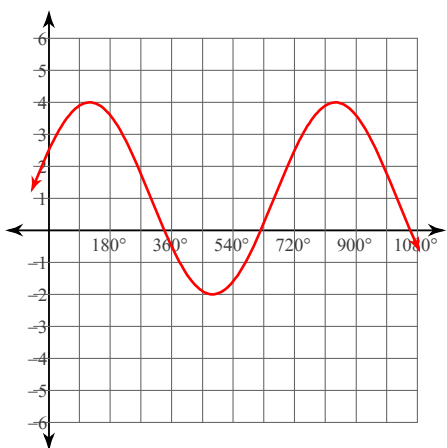
47) $y = 2\sin(2\theta + 30) - 1$



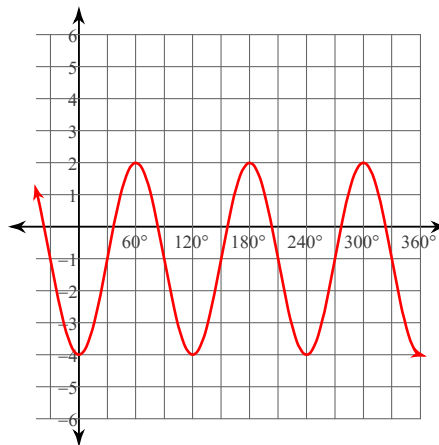
48) $y = -2 + \frac{1}{2}\cos(3\theta + 120)$



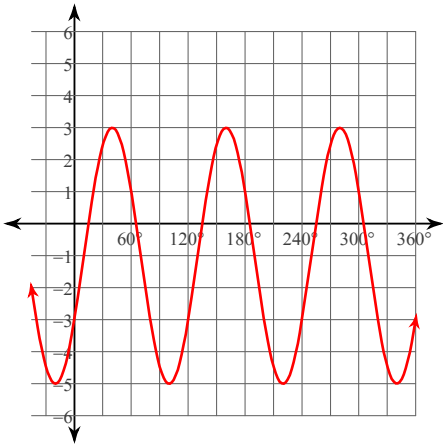
49) $y = 3\cos\left(\frac{\theta}{2} - 60\right) + 1$



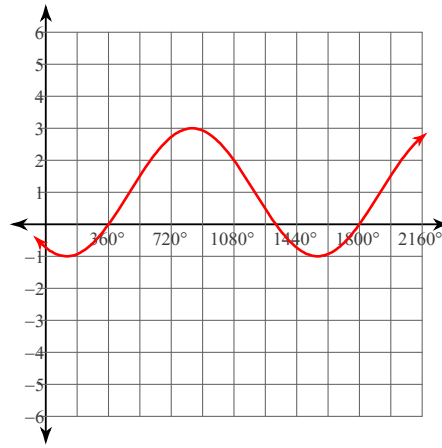
50) $y = -1 + 3\sin(3\theta - 90)$



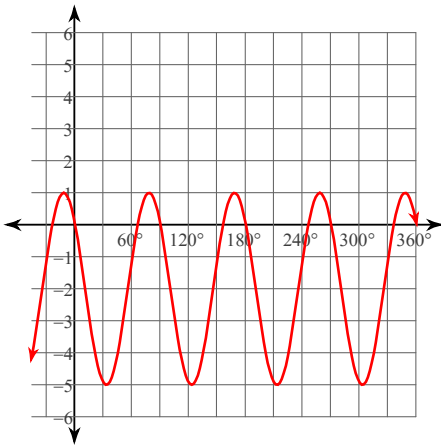
51) $y = -1 + 4\sin(3\theta - 30)$



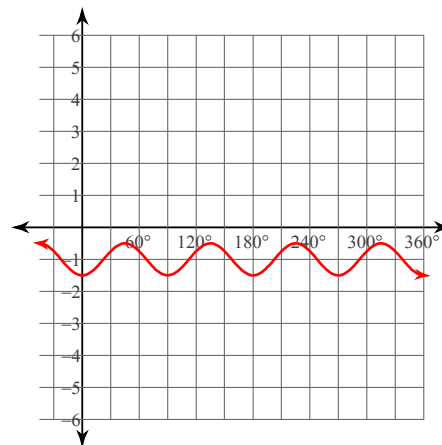
52) $y = 1 + 2\cos\left(\frac{\theta}{4} + 150\right)$



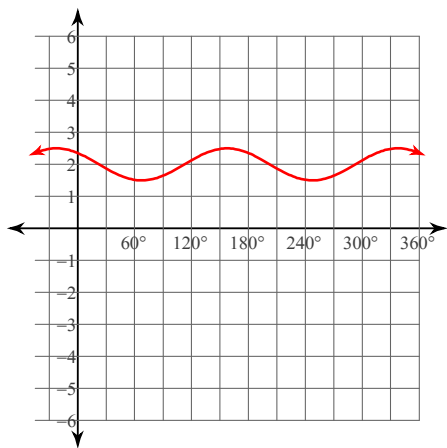
53) $y = -2 + 3\cos(4\theta + 45)$



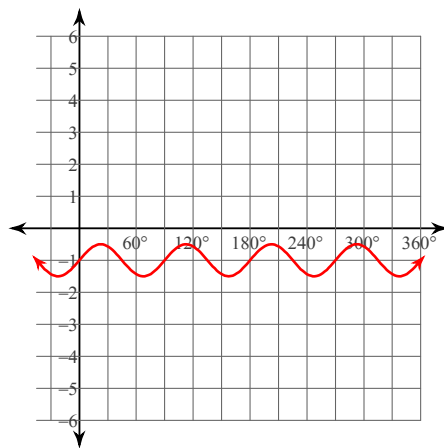
54) $y = \frac{1}{2}\sin(4\theta - 90) - 1$



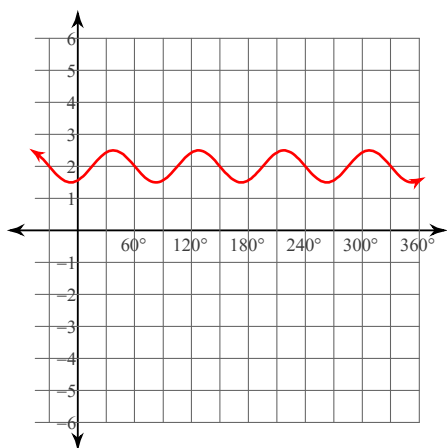
$$55) y = \frac{1}{2} \sin(2\theta + 135) + 2$$



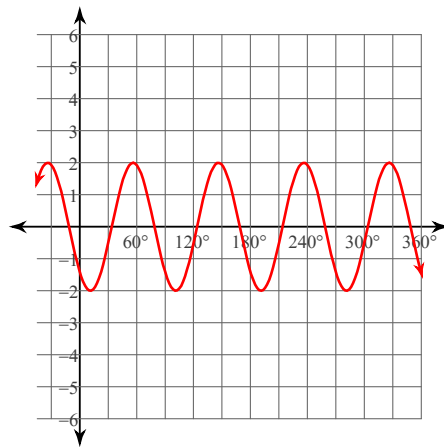
$$56) y = \frac{1}{2} \cos(4\theta - 90) - 1$$



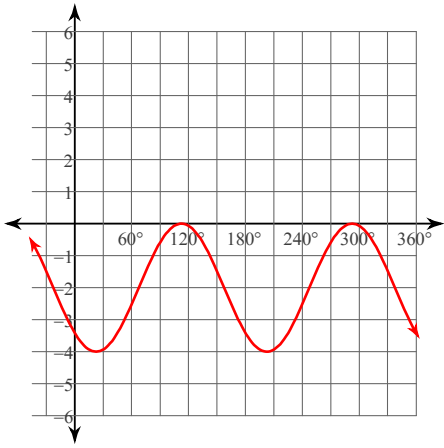
$$57) y = \frac{1}{2} \sin(4\theta - 60) + 2$$



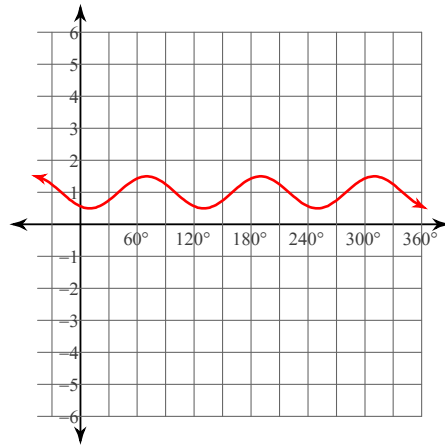
$$58) y = 2 \cos(4\theta + 135)$$



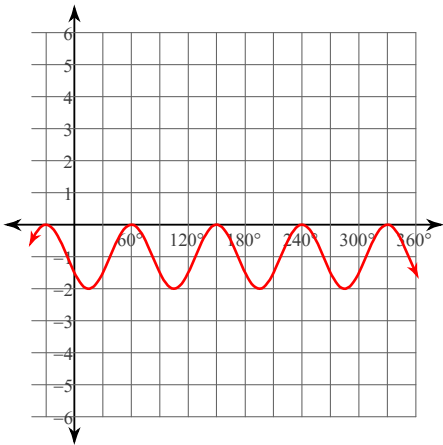
59) $y = 2\sin(2\theta + 225) - 2$



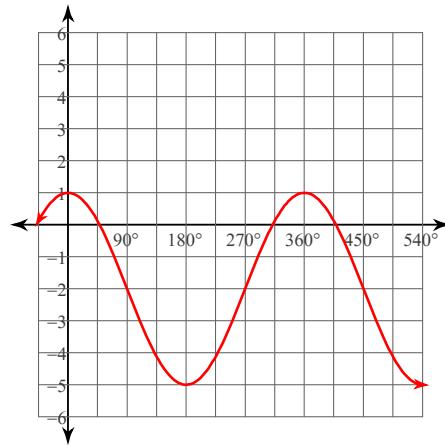
60) $y = \frac{1}{2}\cos(3\theta + 150) + 1$



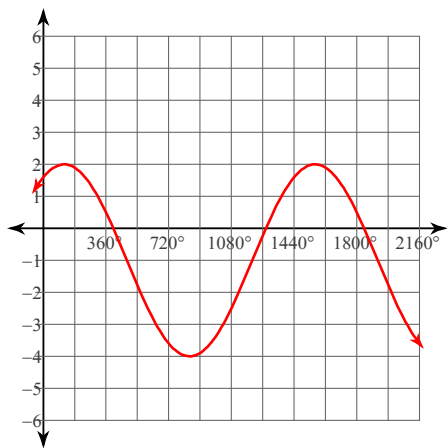
61) $y = -1 + \cos(4\theta + 120)$



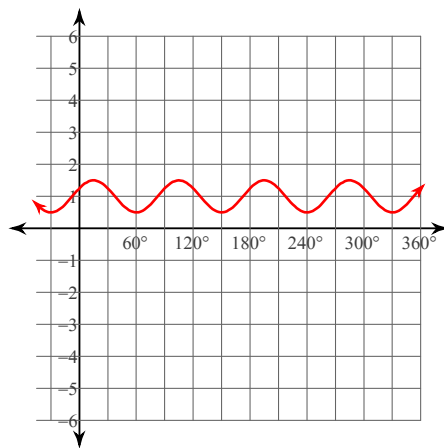
62) $y = 3\cos\theta - 2$



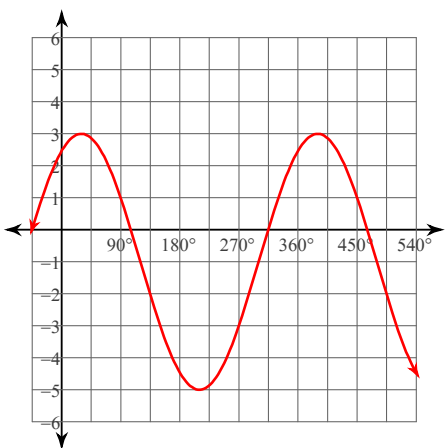
$$63) y = 3\sin\left(\frac{\theta}{4} + 60\right) - 1$$



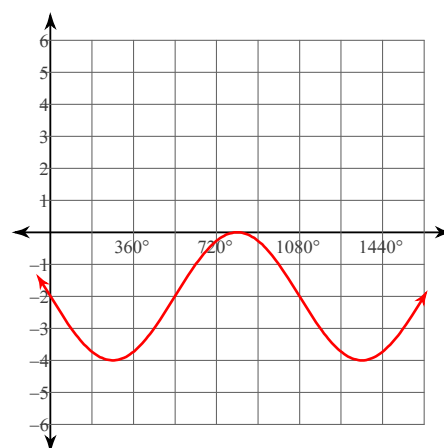
$$64) y = \frac{1}{2}\cos(4\theta - 60) + 1$$



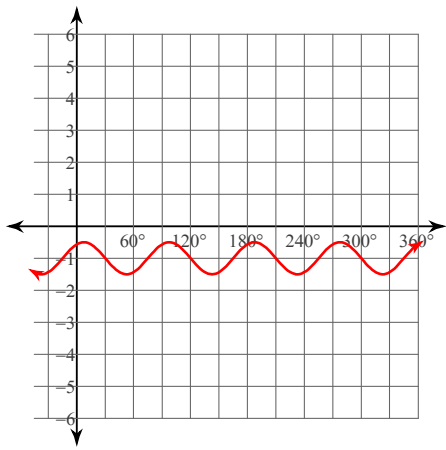
$$65) y = 4\sin(\theta - 300) - 1$$



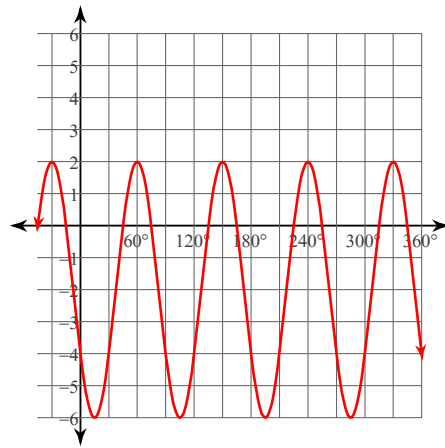
$$66) y = 2\cos\left(\frac{\theta}{3} + 90\right) - 2$$



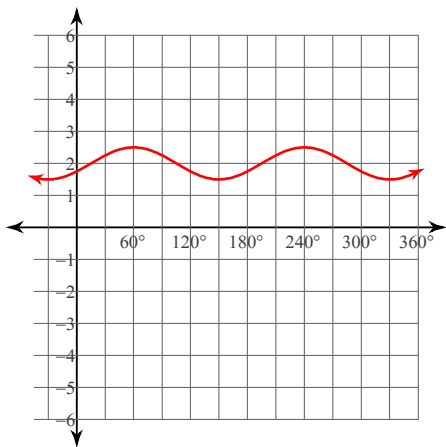
$$67) y = \frac{1}{2} \sin(4\theta + 60) - 1$$



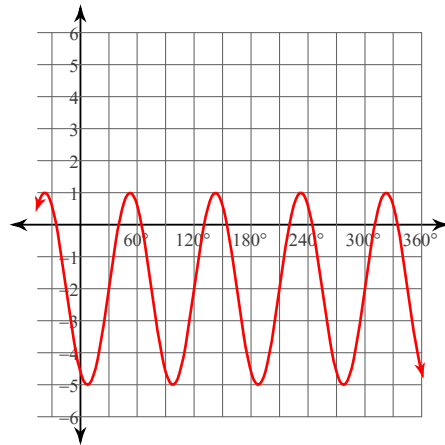
$$68) y = 4 \cos(4\theta + 120) - 2$$



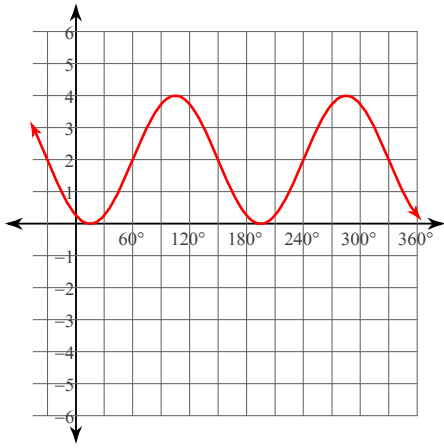
$$69) y = \frac{1}{2} \sin(2\theta - 30) + 2$$



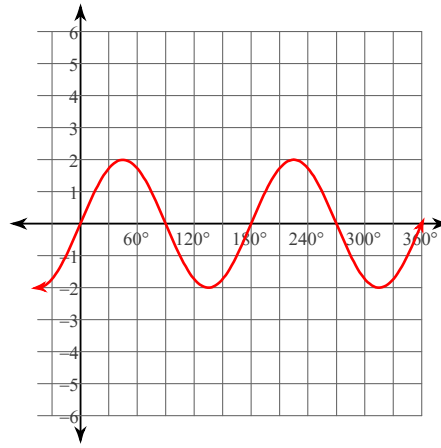
$$70) y = 3 \cos(4\theta + 150) - 2$$



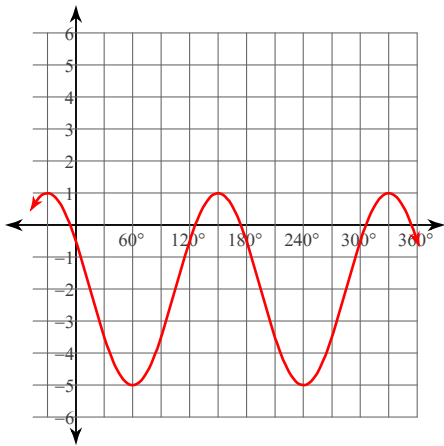
$$71) y = 2\cos(2\theta - 210) + 2$$



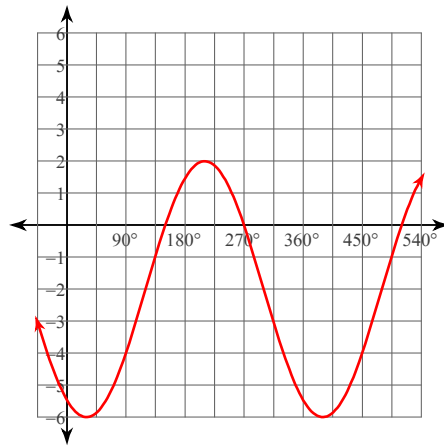
$$72) y = 2\sin 2\theta$$



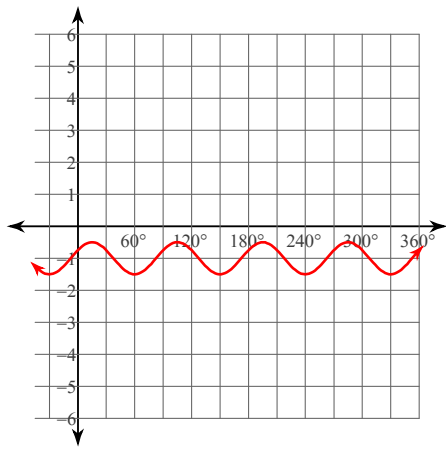
$$73) y = 3\cos(2\theta + 60) - 2$$



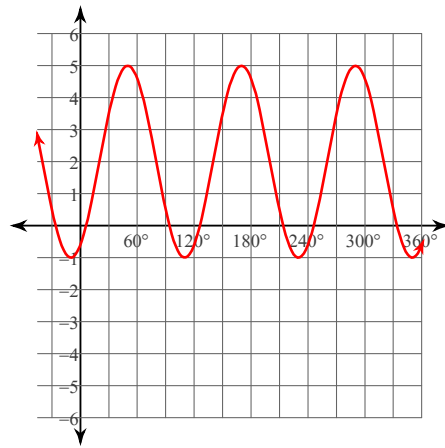
$$74) y = -2 + 4\cos(\theta + 150)$$



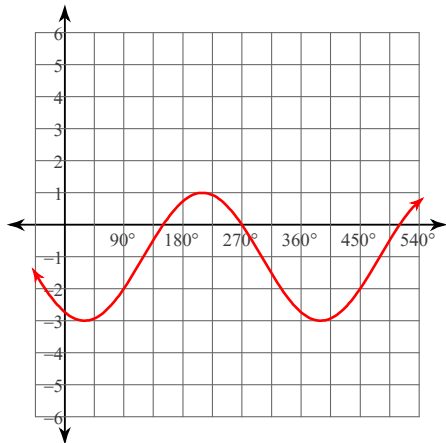
$$75) y = \frac{1}{2} \cos(4\theta + 300) - 1$$



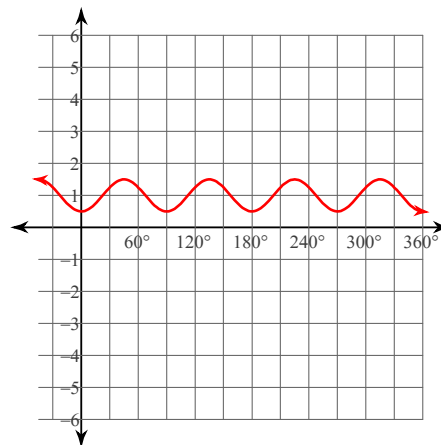
$$76) y = 3 \cos(3\theta + 210) + 2$$



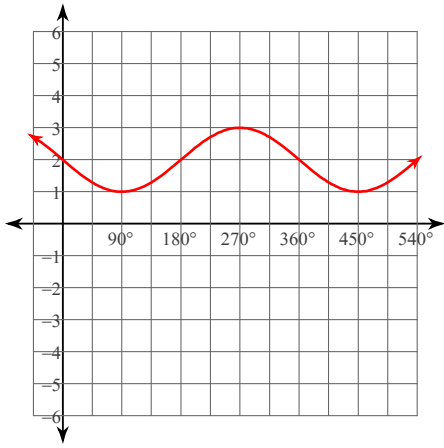
$$77) y = 2 \cos(\theta + 150) - 1$$



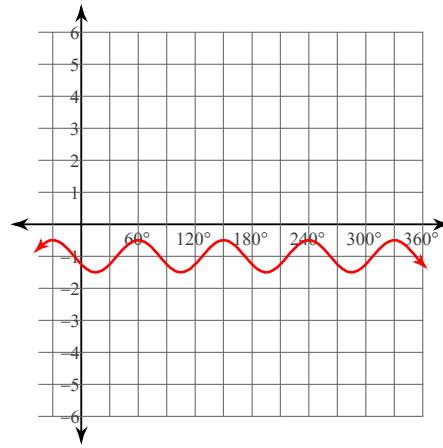
$$78) y = 1 + \frac{1}{2} \sin(4\theta - 90)$$



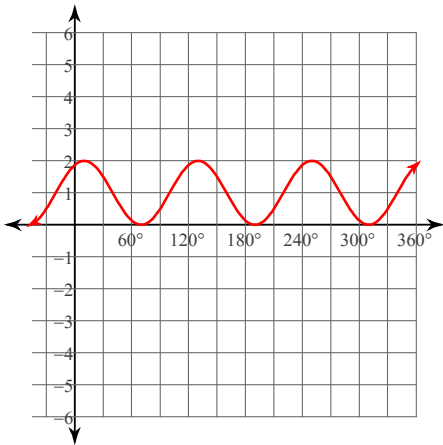
79) $y = 2 + \cos(\theta + 90)$



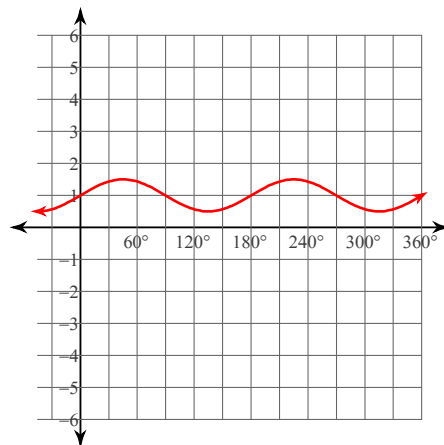
80) $y = \frac{1}{2} \sin(4\theta + 210) - 1$



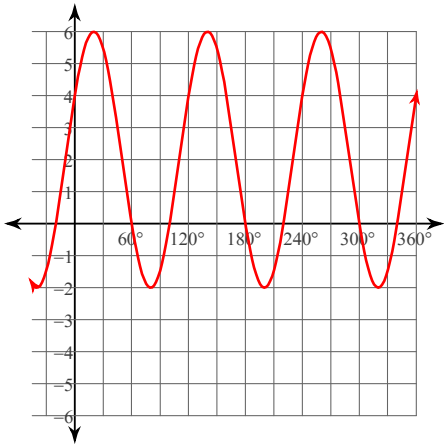
81) $y = \sin(3\theta + 60) + 1$



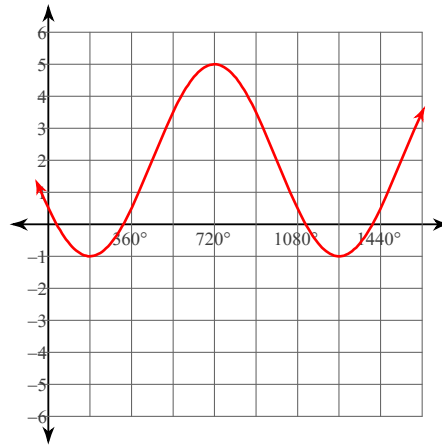
82) $y = \frac{1}{2} \cos(2\theta + 270) + 1$



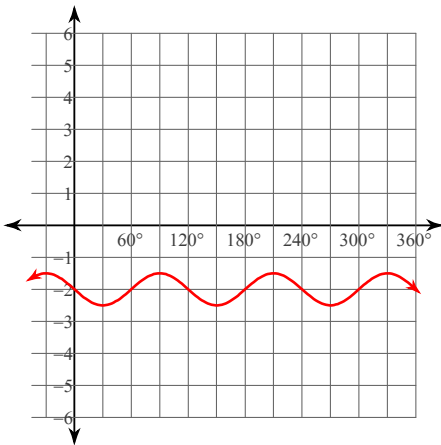
$$83) y = 4\sin(3\theta + 30) + 2$$



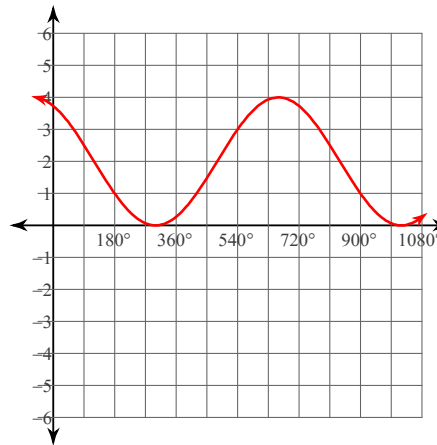
$$84) y = 3\cos\left(\frac{\theta}{3} - 240\right) + 2$$



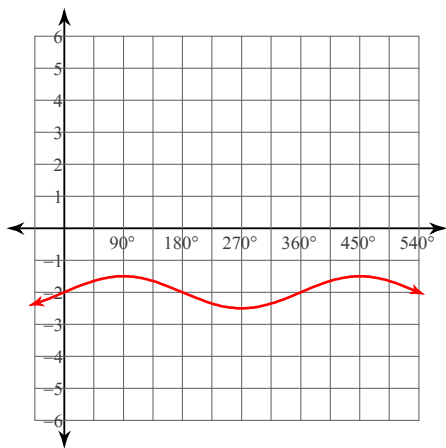
$$85) y = -2 + \frac{1}{2}\cos(3\theta + 90)$$



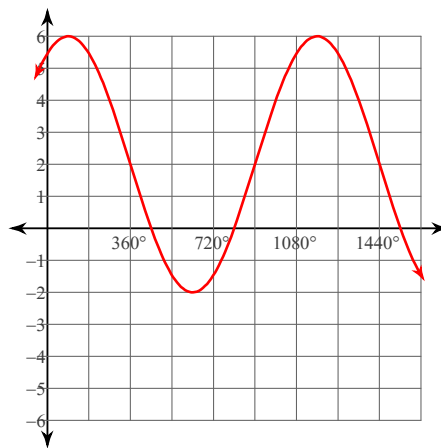
$$86) y = 2\sin\left(\frac{\theta}{2} - 240\right) + 2$$



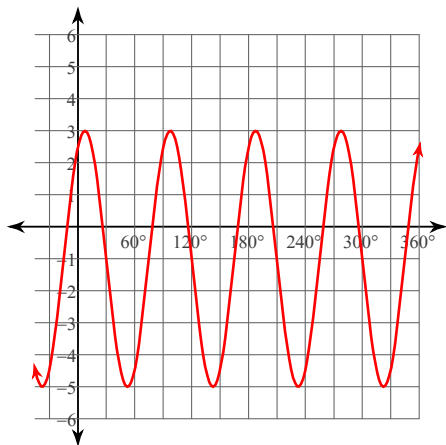
$$87) y = \frac{1}{2} \sin \theta - 2$$



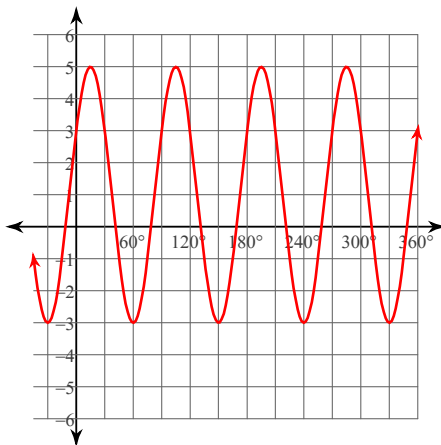
$$88) y = 4 \sin \left(\frac{\theta}{3} - 300 \right) + 2$$



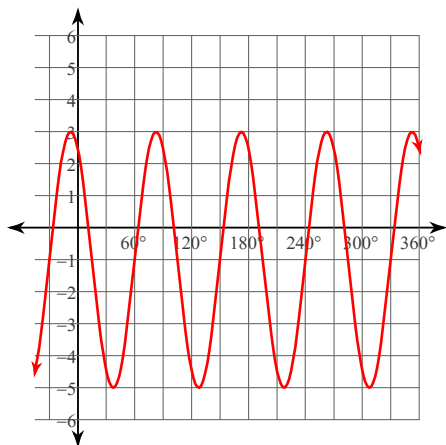
$$89) y = 4 \cos (4\theta + 330) - 1$$



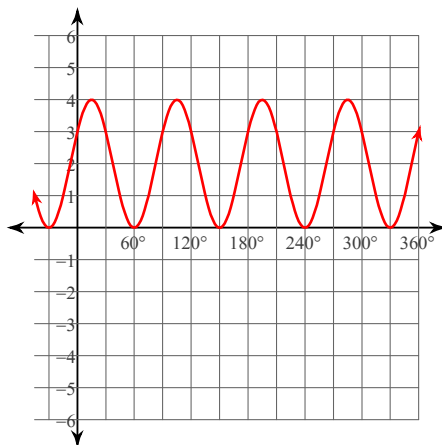
$$90) y = 1 + 4 \sin (4\theta + 30)$$



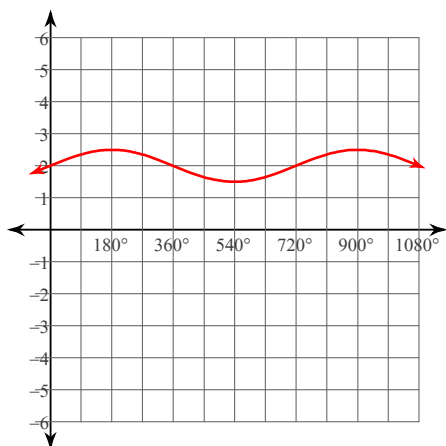
$$91) y = 4\cos(4\theta + 30) - 1$$



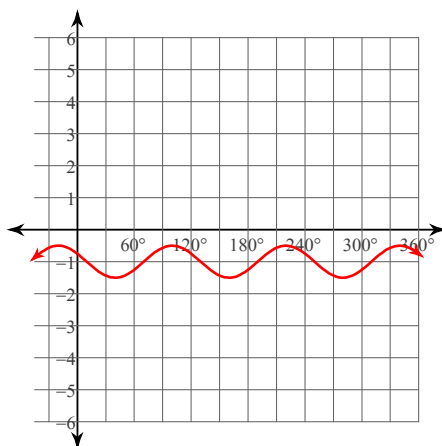
$$92) y = 2 + 2\cos(4\theta + 300)$$



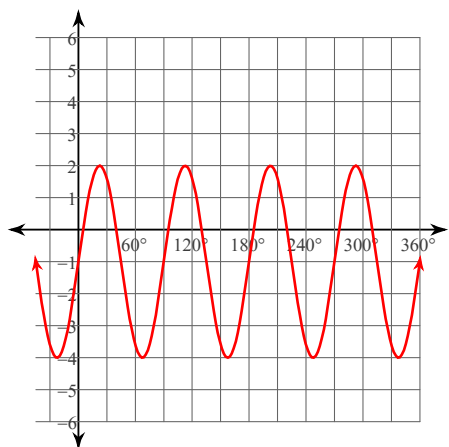
$$93) y = \frac{1}{2}\sin\frac{\theta}{2} + 2$$



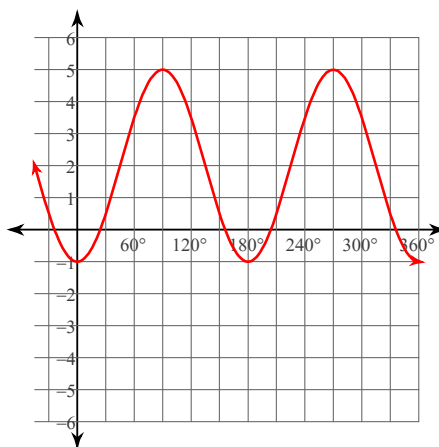
$$94) y = \frac{1}{2}\cos(3\theta + 60) - 1$$



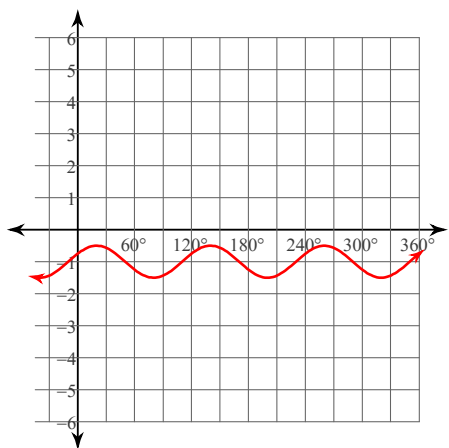
$$95) y = 3\sin 4\theta - 1$$



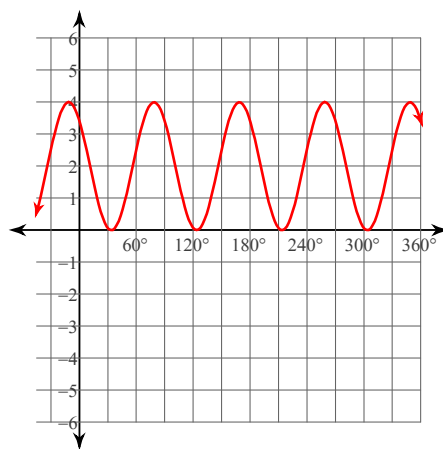
$$96) y = 2 + 3\sin(2\theta + 270^\circ)$$



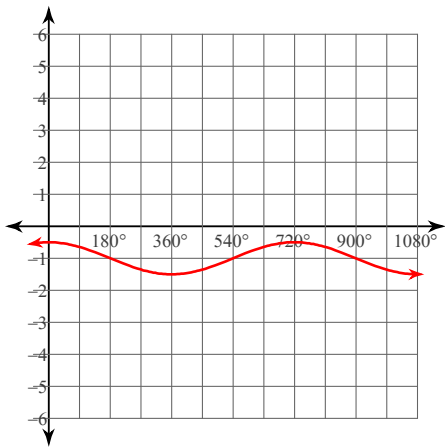
$$97) y = \frac{1}{2}\sin(3\theta + 30^\circ) - 1$$



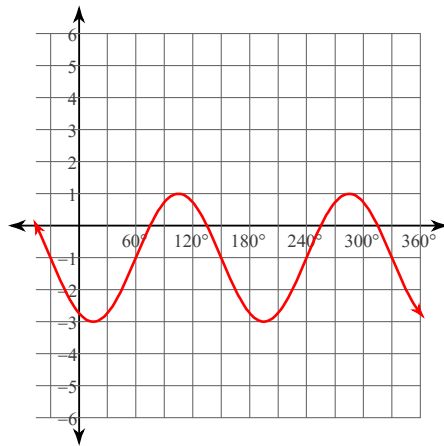
$$98) y = 2\cos(4\theta + 45^\circ) + 2$$



$$99) y = \frac{1}{2} \sin\left(\frac{\theta}{2} + 90\right) - 1$$



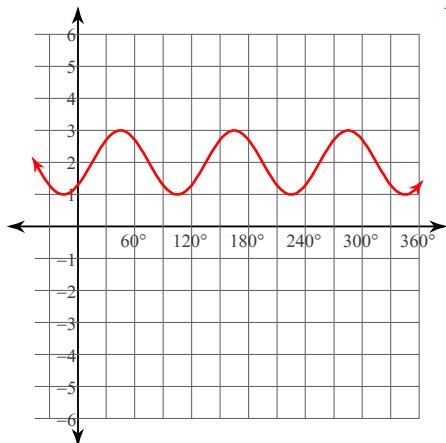
$$100) y = -1 + 2\cos(2\theta - 210)$$



Graph a trigonometric function and find the amplitude of each one

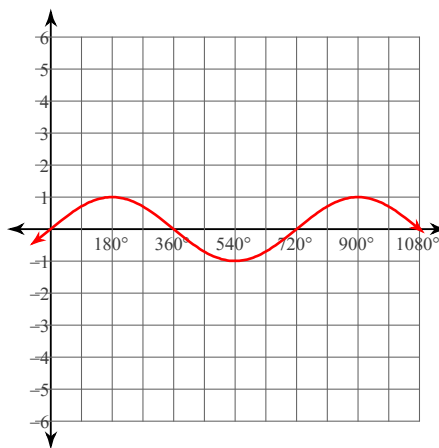
$$101) y = \cos(3\theta - 135) + 2$$

Amplitude: 1

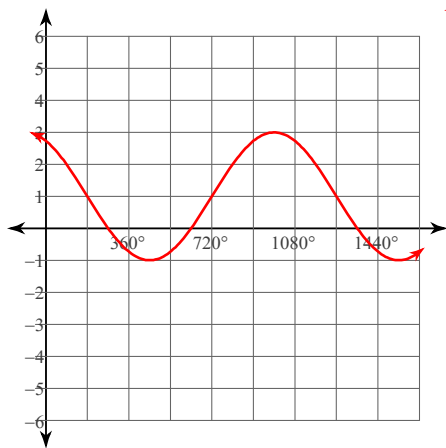


$$102) y = \cos\left(\frac{\theta}{2} - 90\right)$$

Amplitude: 1

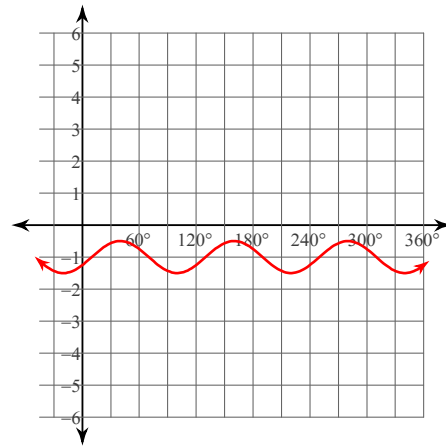


103) $y = 1 + 2\sin\left(\frac{\theta}{3} + 120\right)$



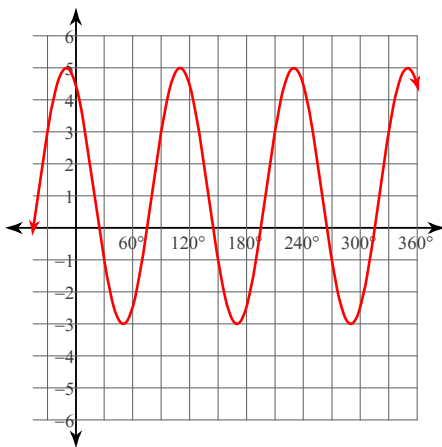
Amplitude: 2

104) $y = \frac{1}{2}\cos(3\theta - 120) - 1$



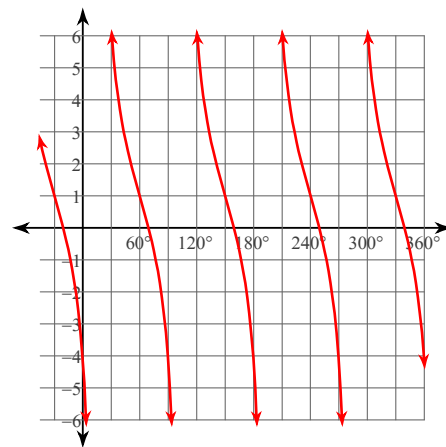
Amplitude: $\frac{1}{2}$

105) $y = 4\cos(3\theta + 30) + 1$



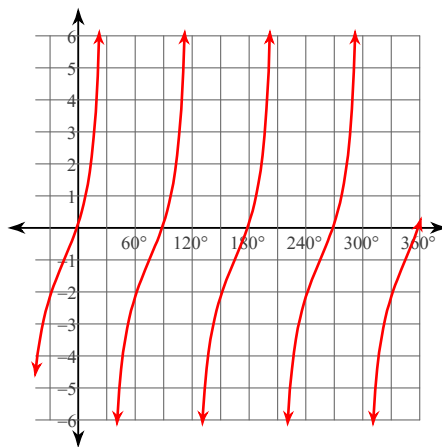
Amplitude: 4

106) $y = 3\cot(2\theta + 150) + 1$



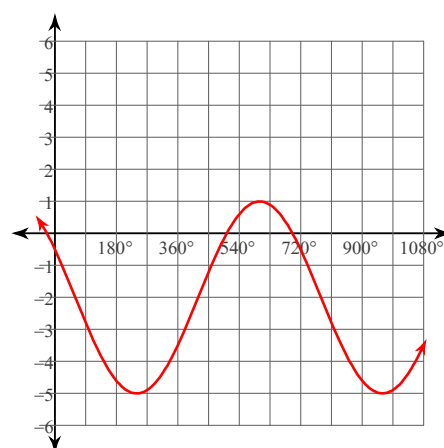
Amplitude: None

107) $y = 2\tan(2\theta + 30) - 1$



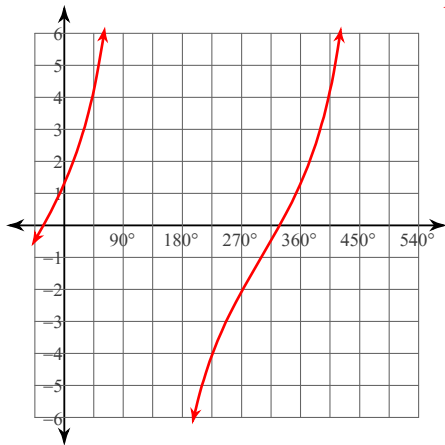
Amplitude: None

108) $y = -2 + 3\sin\left(\frac{\theta}{2} + 150\right)$



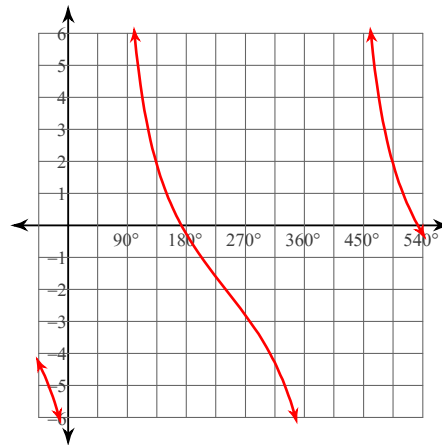
Amplitude: 3

$$109) y = -1 + 4\tan\left(\frac{\theta}{2} - 150\right)$$



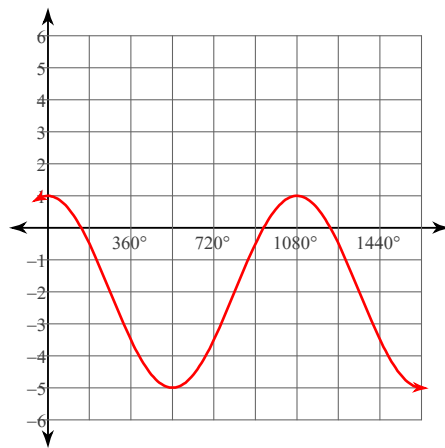
Amplitude: None

$$110) y = 3\cot\left(\frac{\theta}{2} - 30\right) - 2$$



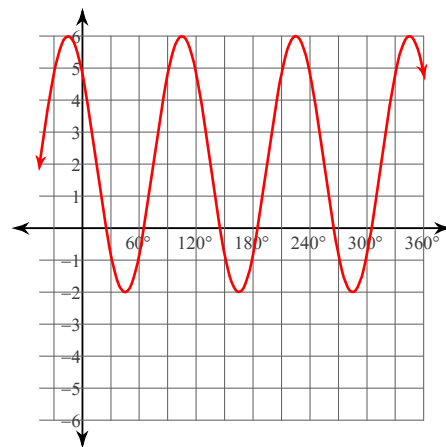
Amplitude: None

$$111) y = 3\sin\left(\frac{\theta}{3} + 90\right) - 2$$



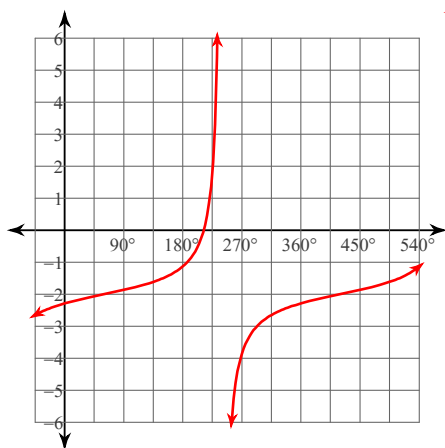
Amplitude: 3

$$112) y = 4\cos(3\theta + 45) + 2$$



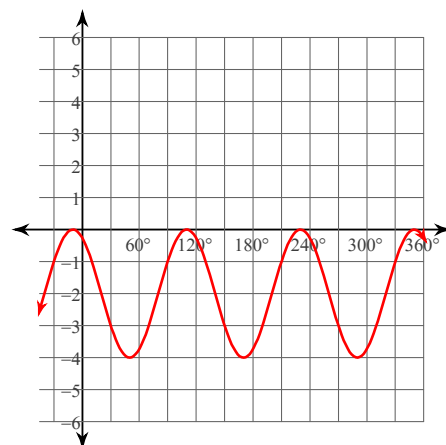
Amplitude: 4

$$113) y = \frac{1}{2}\tan\left(\frac{\theta}{2} + 150\right) - 2$$



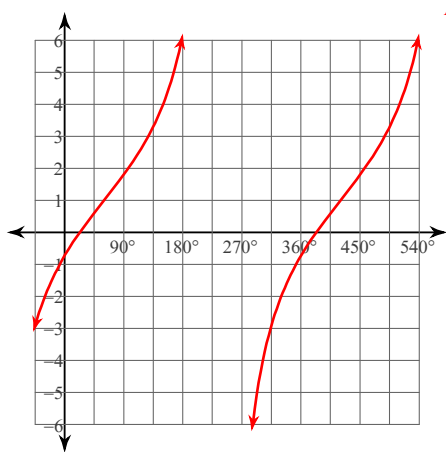
Amplitude: None

$$114) y = 2\cos(3\theta - 330) - 2$$



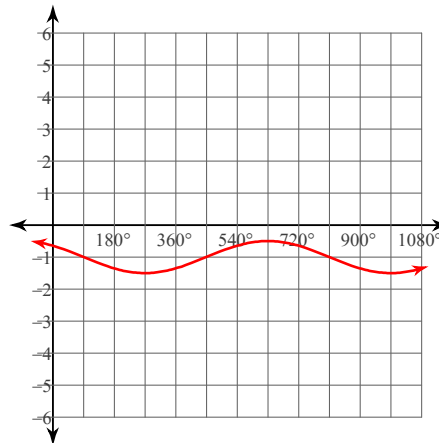
Amplitude: 2

$$115) y = 3\tan\left(\frac{\theta}{2} - 30\right) + 1$$



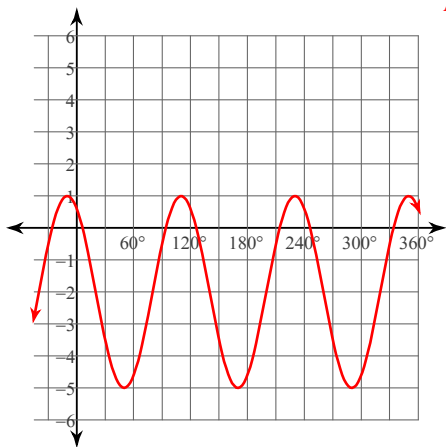
Amplitude: None

$$116) y = -1 + \frac{1}{2}\sin\left(\frac{\theta}{2} - 225\right)$$



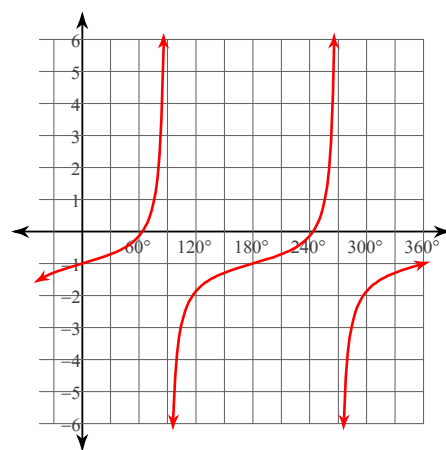
Amplitude: $\frac{1}{2}$

$$117) y = 3\sin(3\theta + 120) - 2$$



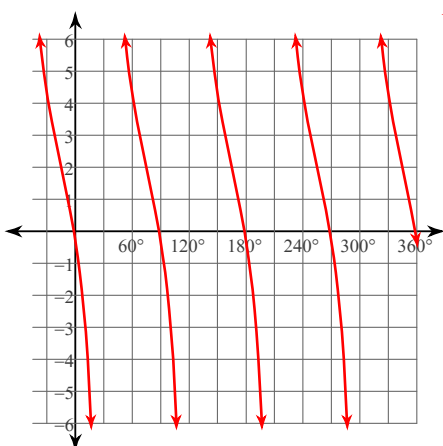
Amplitude: 3

$$118) y = -1 + \frac{1}{2}\tan \theta$$



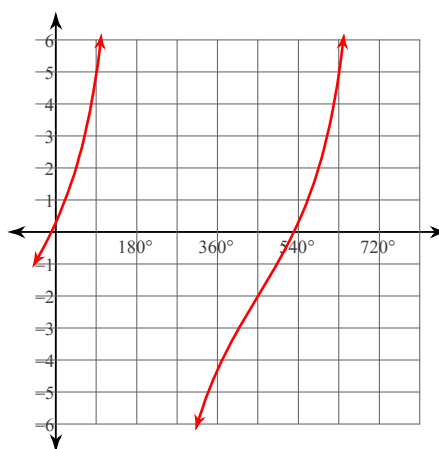
Amplitude: None

$$119) y = 4\cot(2\theta + 120) + 2$$



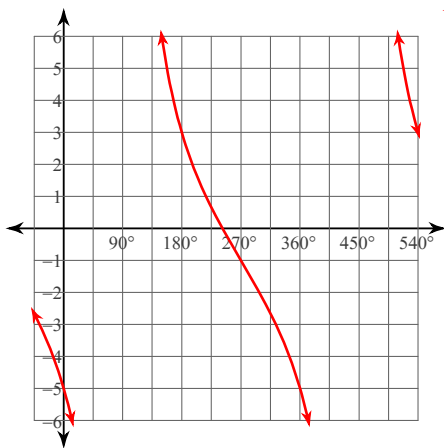
Amplitude: None

$$120) y = 4\tan\left(\frac{\theta}{3} + 30\right) - 2$$



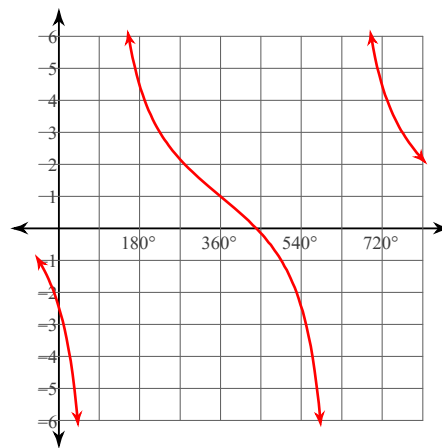
Amplitude: None

$$121) y = 4\cot\left(\frac{\theta}{2} - 45\right) - 1$$



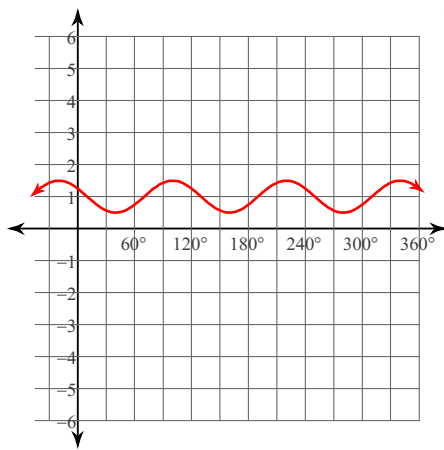
Amplitude: None

$$122) y = 2\cot\left(\frac{\theta}{3} + 150\right) + 1$$



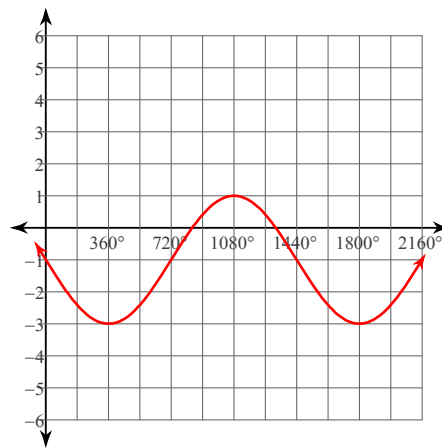
Amplitude: None

$$123) y = \frac{1}{2}\sin(3\theta - 210) + 1$$



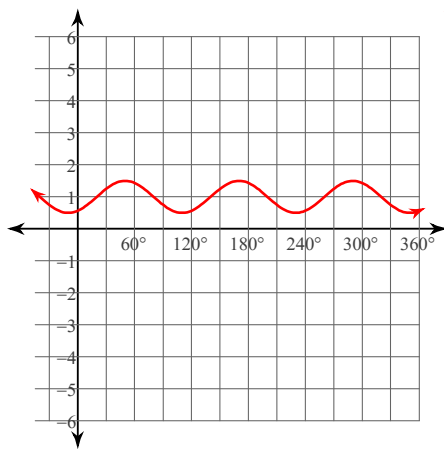
Amplitude: $\frac{1}{2}$

$$124) y = 2\cos\left(\frac{\theta}{4} + 90\right) - 1$$



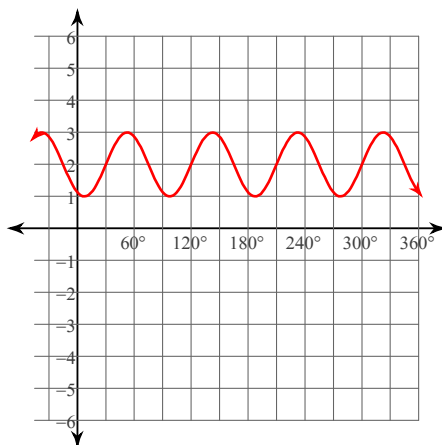
Amplitude: 2

$$125) y = 1 + \frac{1}{2}\sin(3\theta - 60)$$



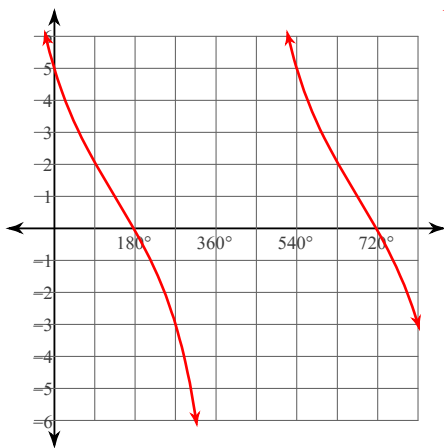
Amplitude: $\frac{1}{2}$

$$126) y = 2 + \cos(4\theta + 150)$$



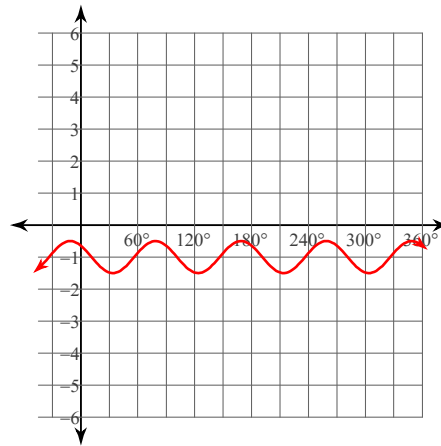
Amplitude: 1

$$127) y = 4\cot\left(\frac{\theta}{3} - 315\right) + 1$$



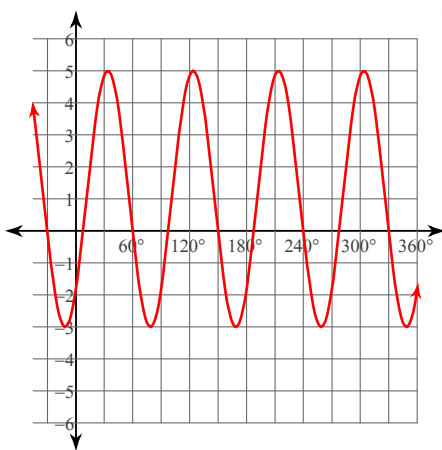
Amplitude: None

$$128) y = -1 + \frac{1}{2}\sin(4\theta + 135)$$



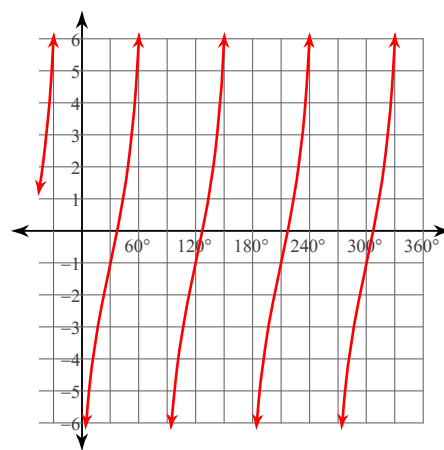
Amplitude: $\frac{1}{2}$

$$129) y = 4\cos(4\theta - 135) + 1$$



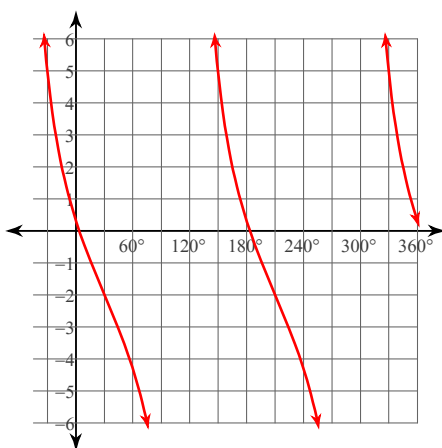
Amplitude: 4

$$130) y = 4\tan(2\theta + 120) - 1$$



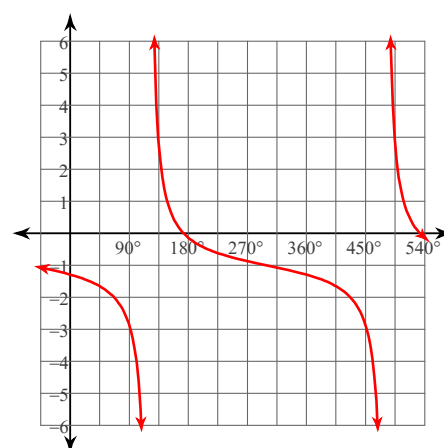
Amplitude: None

$$131) y = -2 + 4\cot(\theta - 120)$$



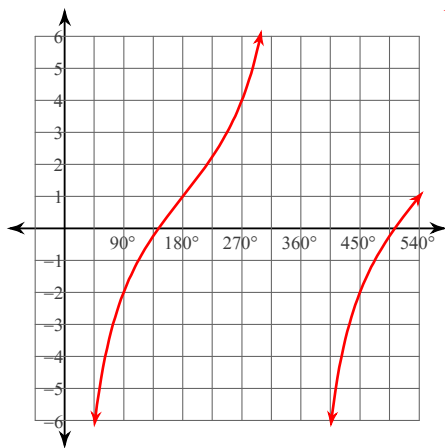
Amplitude: None

$$132) y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 120\right) - 1$$



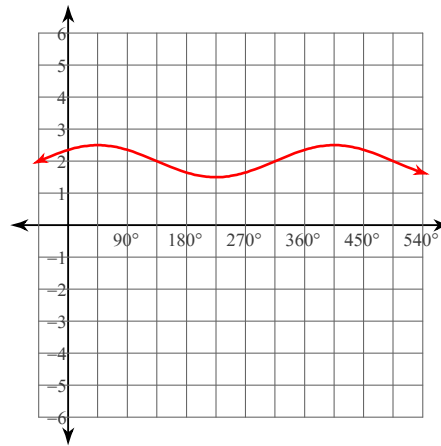
Amplitude: None

$$133) y = 1 + 3\tan\left(\frac{\theta}{2} - 90\right)$$



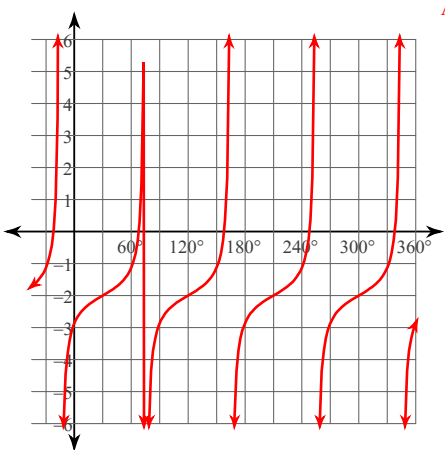
Amplitude: None

$$134) y = \frac{1}{2}\sin(\theta + 45) + 2$$



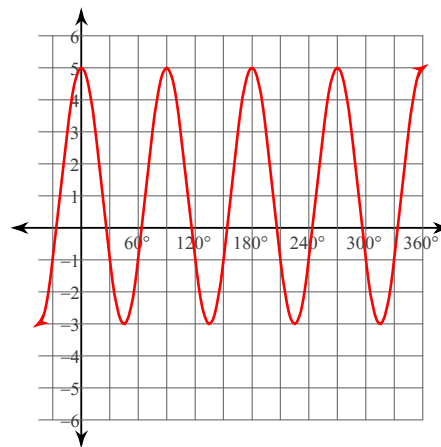
Amplitude: $\frac{1}{2}$

$$135) y = \frac{1}{2}\tan(2\theta + 120) - 2$$



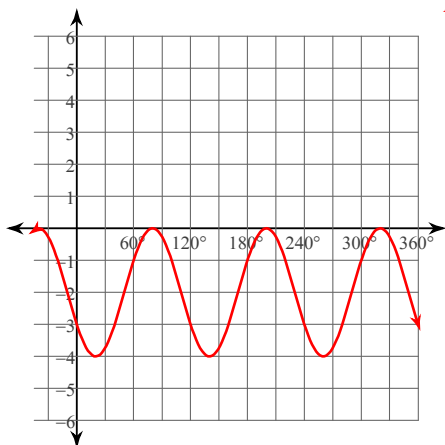
Amplitude: None

$$136) y = 4\sin(4\theta - 270) + 1$$



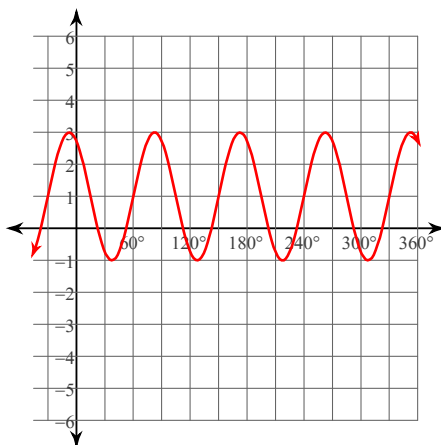
Amplitude: 4

$$137) y = 2\sin(3\theta - 150) - 2$$



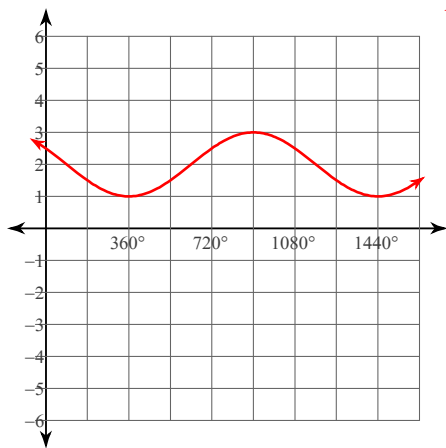
Amplitude: 2

$$138) y = 1 + 2\cos(4\theta + 30)$$



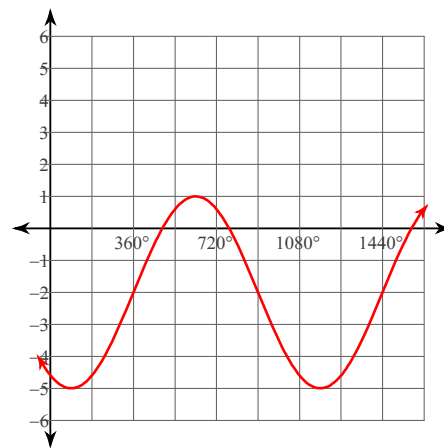
Amplitude: 2

$$139) y = \sin\left(\frac{\theta}{3} + 150\right) + 2$$



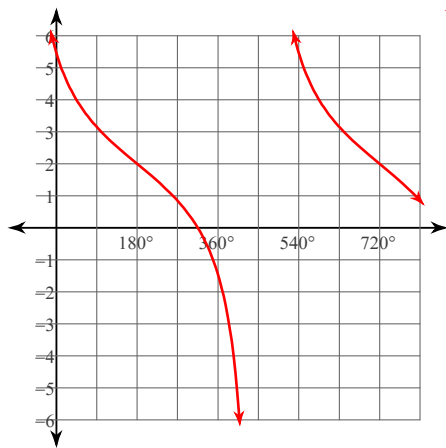
Amplitude: 1

$$140) y = 3\cos\left(\frac{\theta}{3} + 150\right) - 2$$



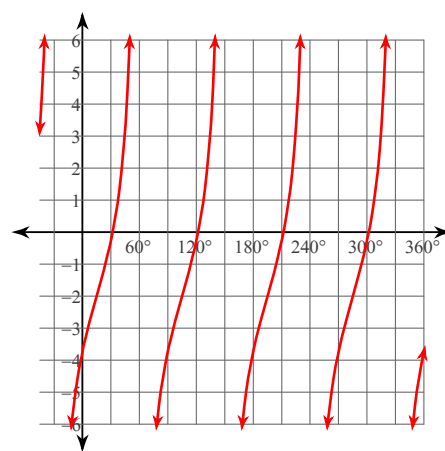
Amplitude: 3

$$141) y = 2\cot\left(\frac{\theta}{3} + 210\right) + 2$$



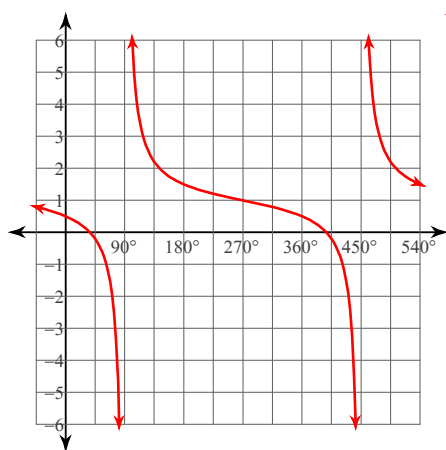
Amplitude: None

$$142) y = -2 + 3\tan(2\theta + 330)$$



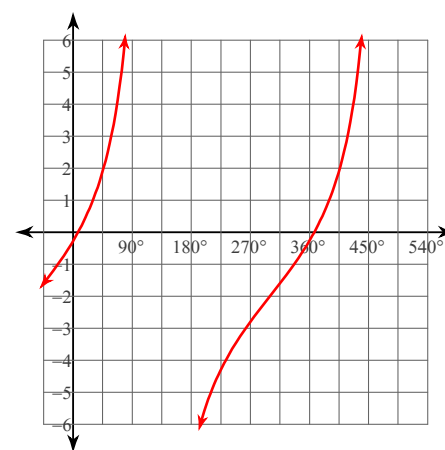
Amplitude: None

$$143) y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 135\right) + 1$$



Amplitude: None

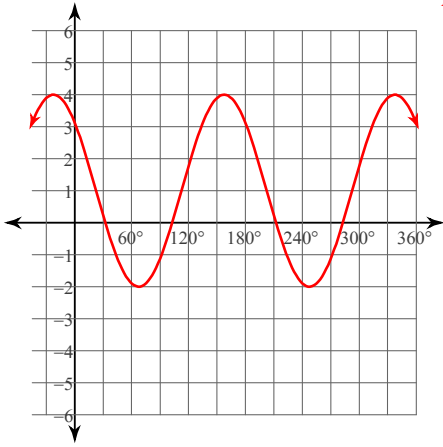
$$144) y = 3\tan\left(\frac{\theta}{2} + 30\right) - 2$$



Amplitude: None

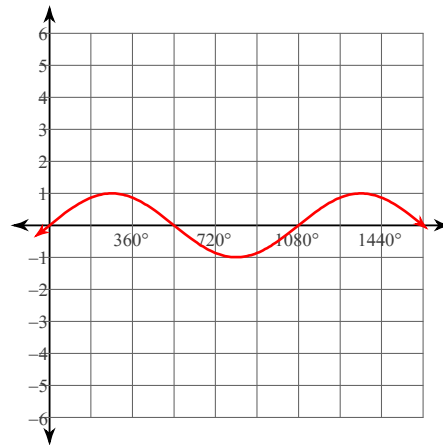
145) $y = 3\sin(2\theta + 135) + 1$

Amplitude: 3



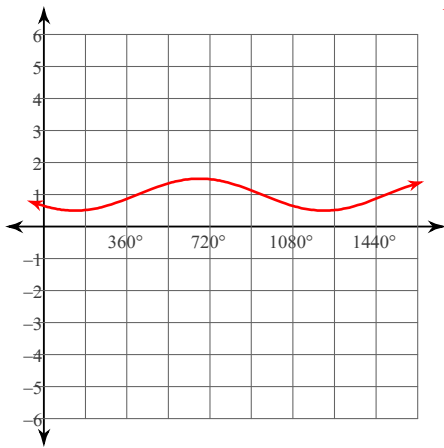
146) $y = \sin \frac{\theta}{3}$

Amplitude: 1



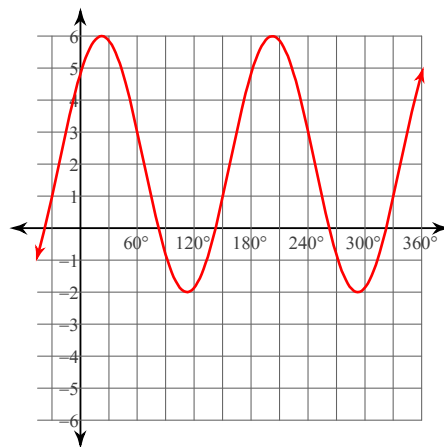
147) $y = \frac{1}{2}\cos\left(\frac{\theta}{3} + 135\right) + 1$

Amplitude: $\frac{1}{2}$



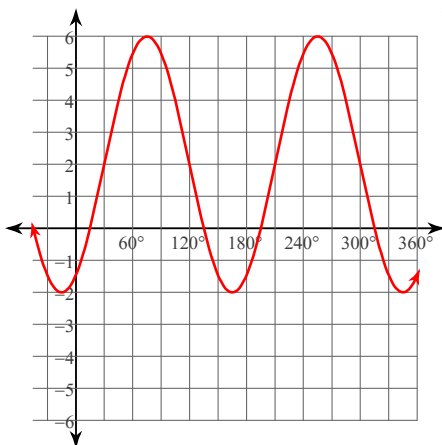
148) $y = 2 + 4\cos(2\theta - 45)$

Amplitude: 4



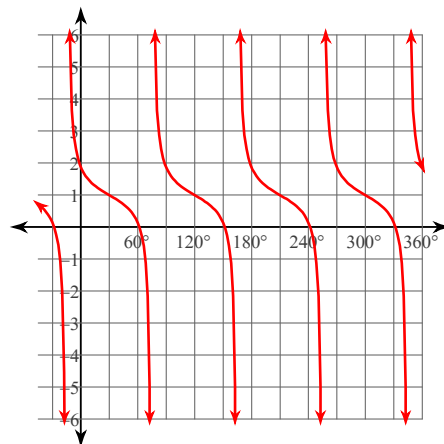
149) $y = 2 + 4\cos(2\theta + 210)$

Amplitude: 4

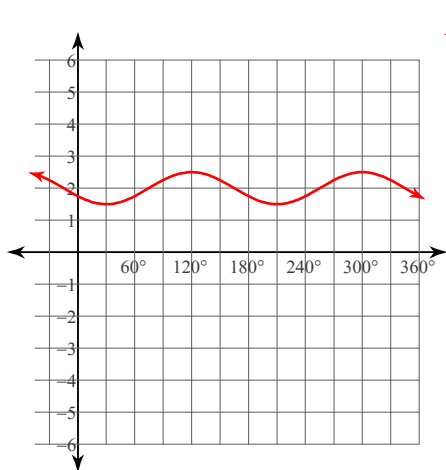


150) $y = \frac{1}{2}\cot(2\theta + 30) + 1$

Amplitude: None

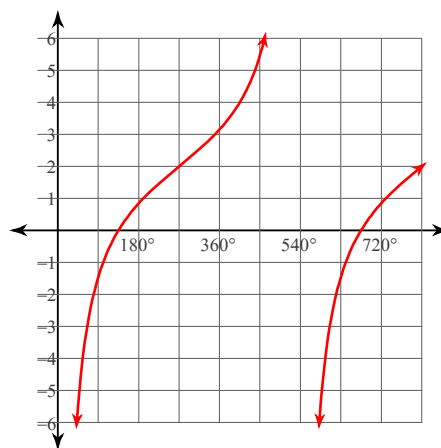


$$151) y = \frac{1}{2} \cos(2\theta + 120) + 2$$



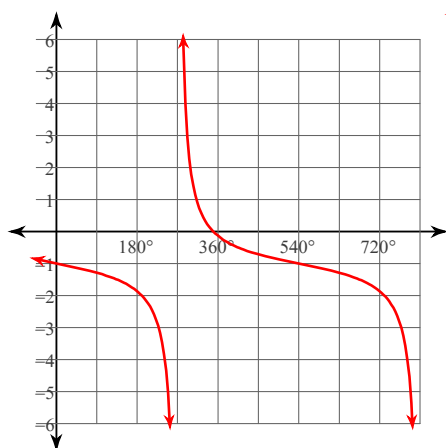
Amplitude: $\frac{1}{2}$

$$152) y = 2 \tan\left(\frac{\theta}{3} + 270\right) + 2$$



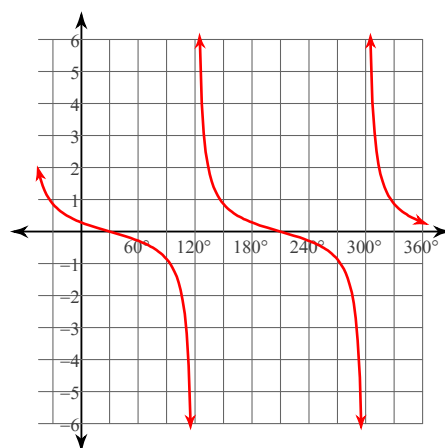
Amplitude: None

$$153) y = \frac{1}{2} \cot\left(\frac{\theta}{3} - 270\right) - 1$$



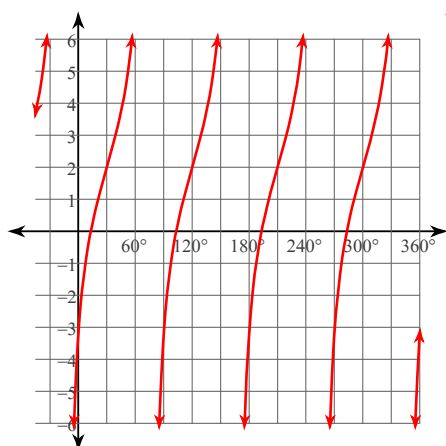
Amplitude: None

$$154) y = \frac{1}{2} \cot(\theta + 60)$$



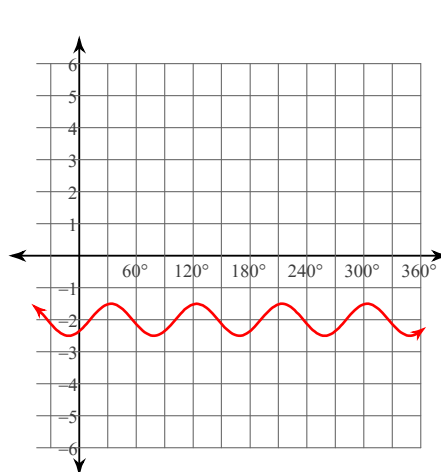
Amplitude: None

$$155) y = 3 \tan(2\theta - 60) + 2$$



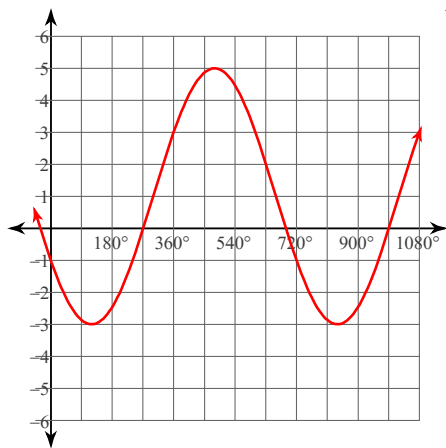
Amplitude: None

$$156) y = \frac{1}{2} \sin(4\theta - 45) - 2$$



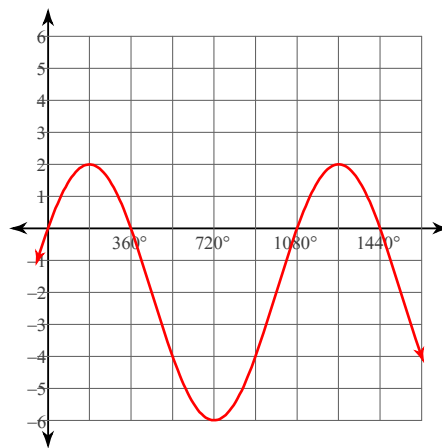
Amplitude: $\frac{1}{2}$

$$157) y = 4\cos\left(\frac{\theta}{2} + 120\right) + 1$$



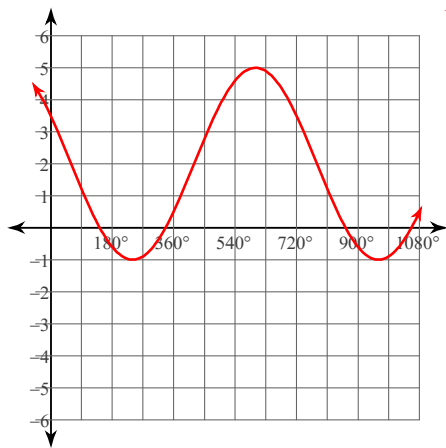
Amplitude: 4

$$158) y = -2 + 4\sin\left(\frac{\theta}{3} + 30\right)$$



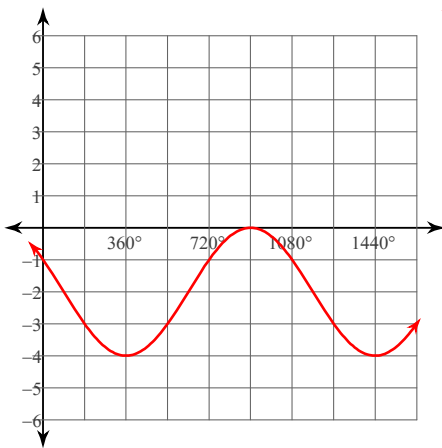
Amplitude: 4

$$159) y = 3\cos\left(\frac{\theta}{2} + 60\right) + 2$$



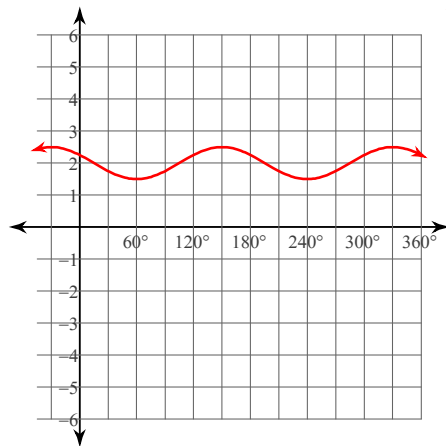
Amplitude: 3

$$160) y = -2 + 2\cos\left(\frac{\theta}{3} + 60\right)$$



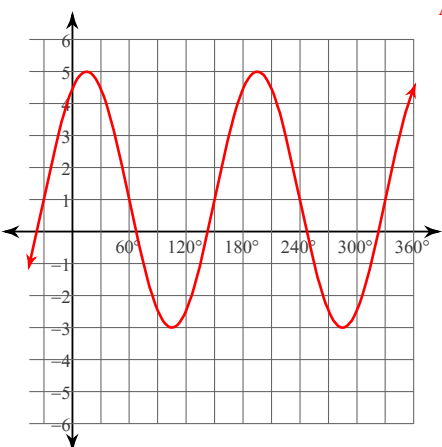
Amplitude: 2

$$161) y = \frac{1}{2}\sin(2\theta + 150) + 2$$



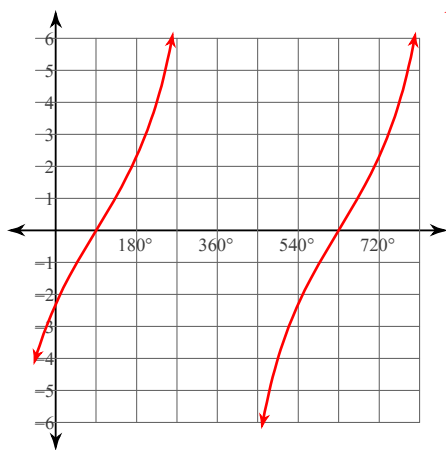
Amplitude: $\frac{1}{2}$

$$162) y = 4\cos(2\theta - 30) + 1$$



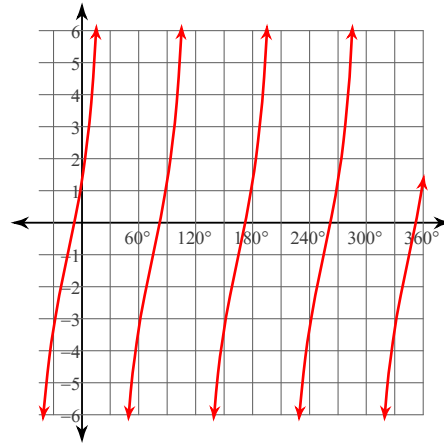
Amplitude: 4

$$163) y = 4\tan\left(\frac{\theta}{3} + 150\right)$$



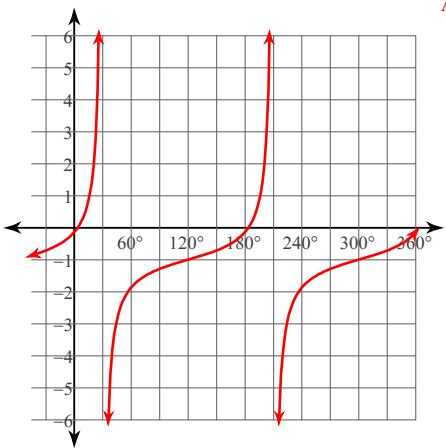
Amplitude: None

$$164) y = 4\tan(2\theta - 150) - 1$$



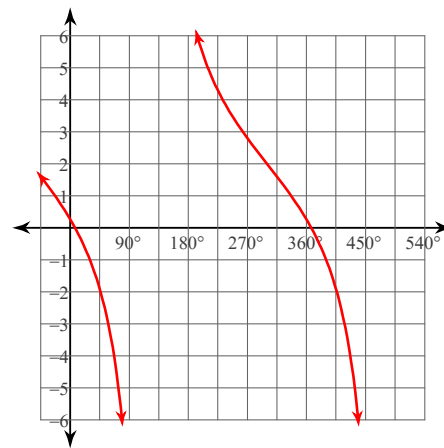
Amplitude: None

$$165) y = \frac{1}{2}\tan(\theta + 60) - 1$$



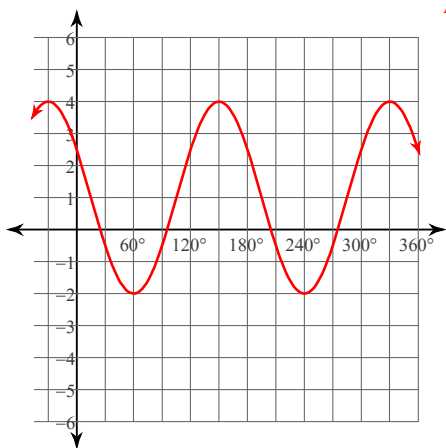
Amplitude: None

$$166) y = 2 + 3\cot\left(\frac{\theta}{2} + 120\right)$$



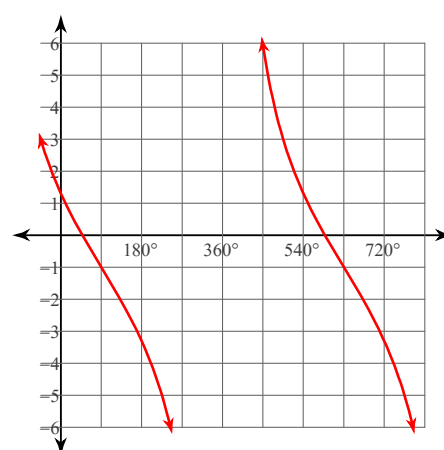
Amplitude: None

$$167) y = 3\sin(2\theta + 150) + 1$$



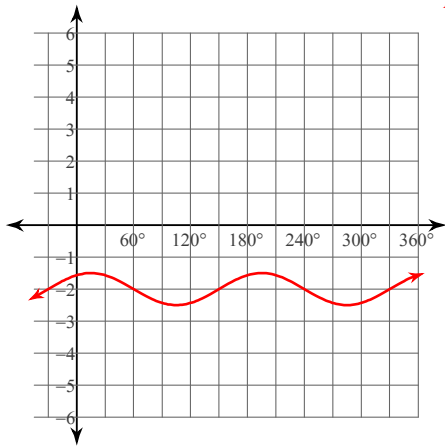
Amplitude: 3

$$168) y = 4\cot\left(\frac{\theta}{3} + 60\right) - 1$$



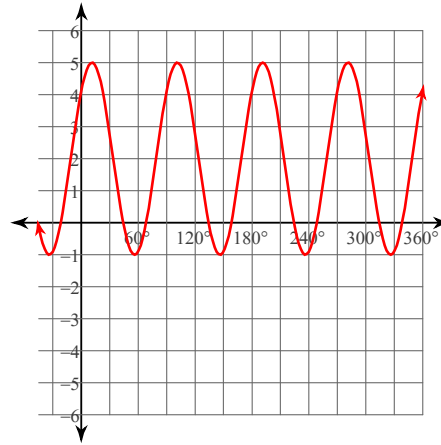
Amplitude: None

$$169) y = \frac{1}{2} \sin(2\theta + 60) - 2$$



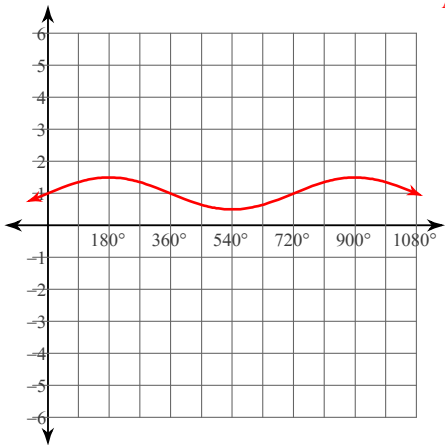
Amplitude: $\frac{1}{2}$

$$170) y = 2 + 3 \sin(4\theta + 45)$$



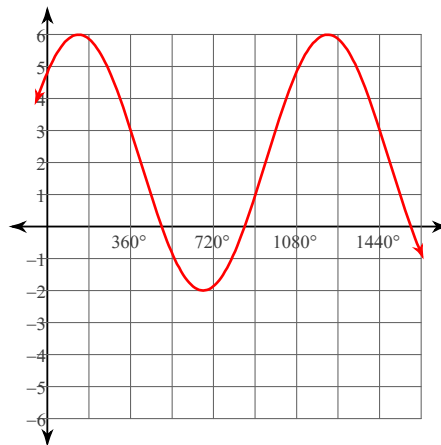
Amplitude: 3

$$171) y = \frac{1}{2} \cos\left(\frac{\theta}{2} - 90\right) + 1$$



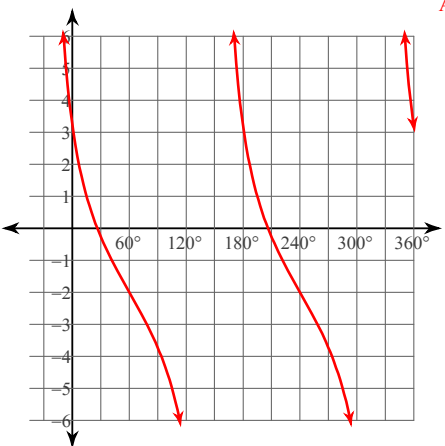
Amplitude: $\frac{1}{2}$

$$172) y = 2 + 4 \cos\left(\frac{\theta}{3} - 45\right)$$



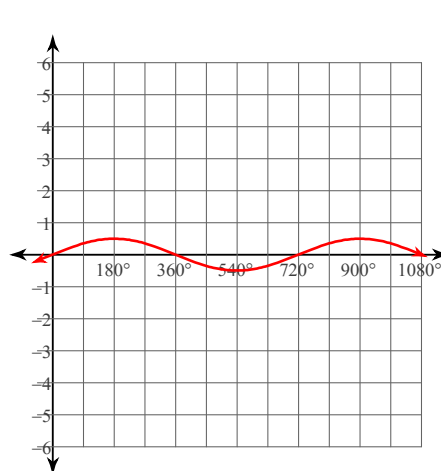
Amplitude: 4

$$173) y = 3 \cot(\theta + 30) - 2$$



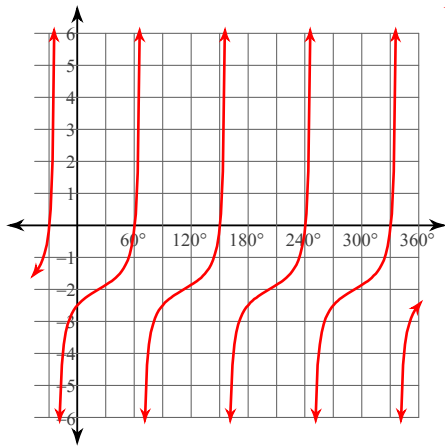
Amplitude: None

$$174) y = \frac{1}{2} \cos\left(\frac{\theta}{2} - 90\right)$$



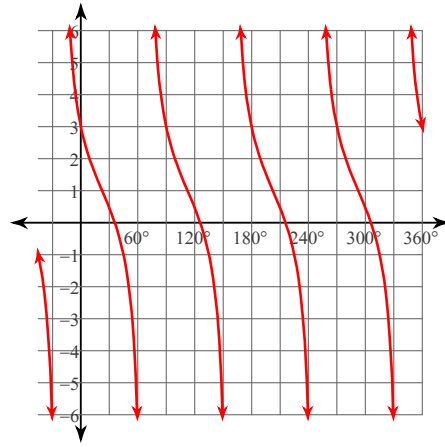
Amplitude: $\frac{1}{2}$

$$175) y = \frac{1}{2} \tan(2\theta - 45) - 2$$



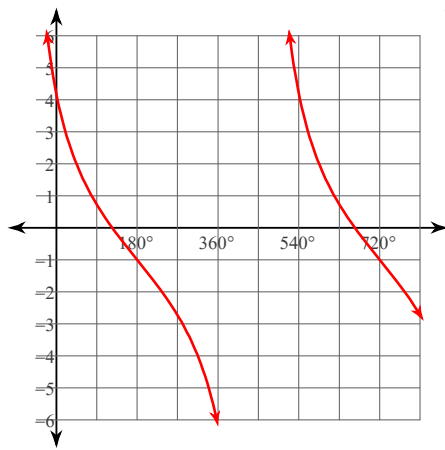
Amplitude: None

$$176) y = 2 \cot(2\theta + 45) + 1$$



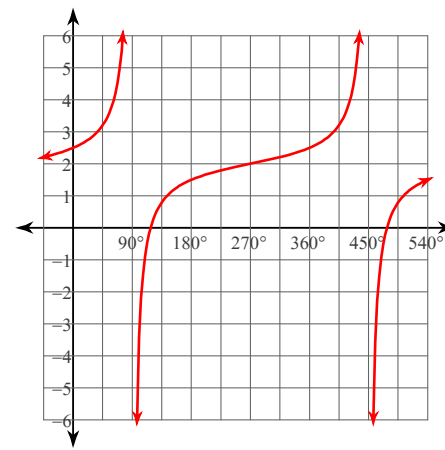
Amplitude: None

$$177) y = 3 \cot\left(\frac{\theta}{3} + 30\right) - 1$$



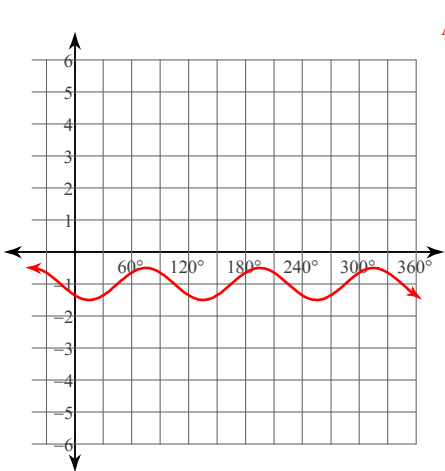
Amplitude: None

$$178) y = \frac{1}{2} \tan\left(\frac{\theta}{2} + 45\right) + 2$$



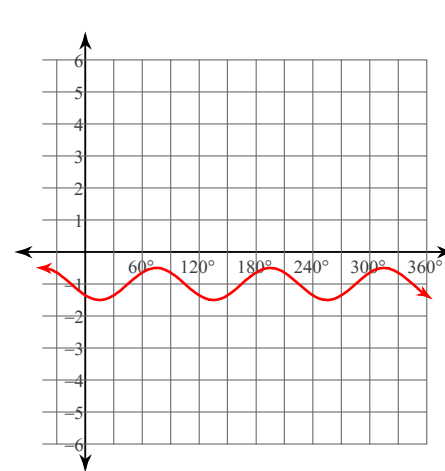
Amplitude: None

$$179) y = \frac{1}{2} \cos(3\theta - 225) - 1$$



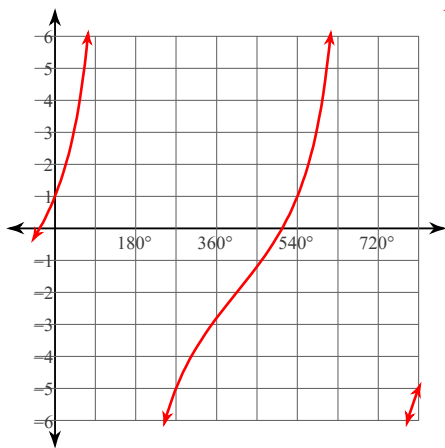
Amplitude: $\frac{1}{2}$

$$180) y = \frac{1}{2} \sin(3\theta - 135) - 1$$



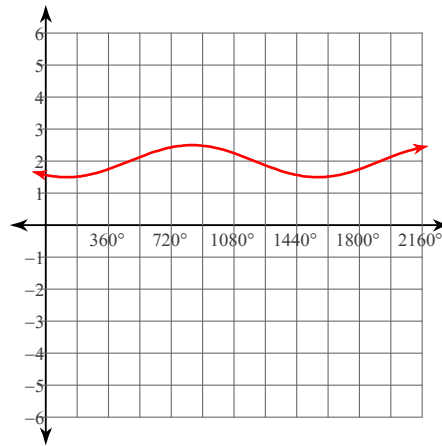
Amplitude: $\frac{1}{2}$

$$181) y = -2 + 3\tan\left(\frac{\theta}{3} + 45\right)$$



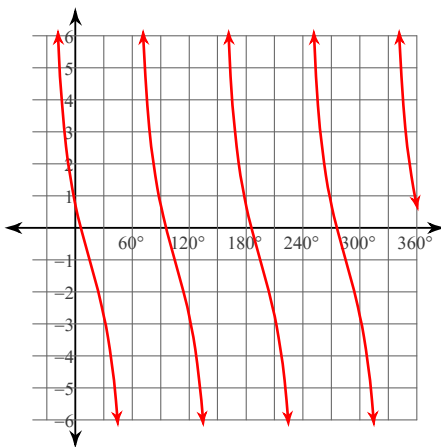
Amplitude: None

$$182) y = \frac{1}{2}\cos\left(\frac{\theta}{4} + 150\right) + 2$$



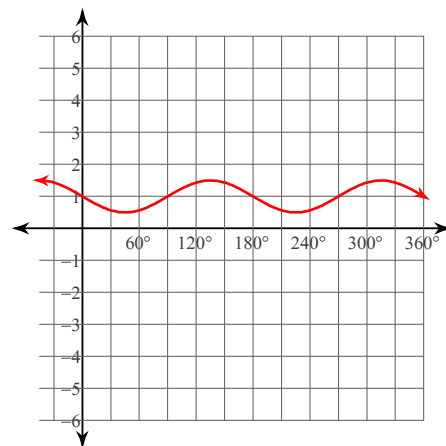
Amplitude: $\frac{1}{2}$

$$183) y = 3\cot(2\theta - 120) - 1$$



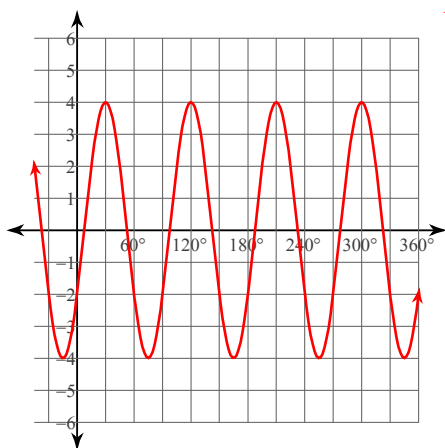
Amplitude: None

$$184) y = \frac{1}{2}\cos(2\theta + 90) + 1$$



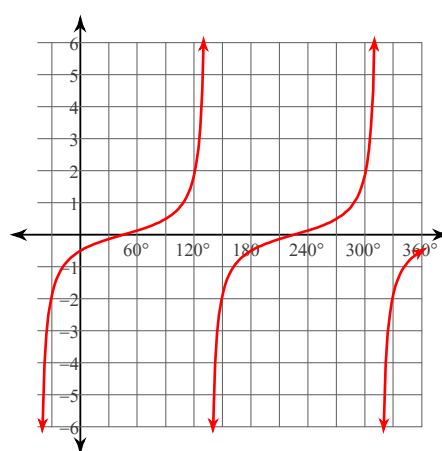
Amplitude: $\frac{1}{2}$

$$185) y = 4\sin(4\theta + 330)$$



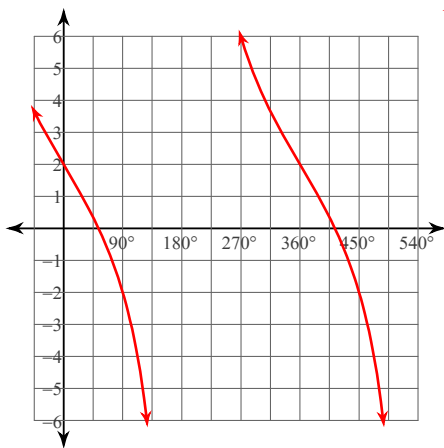
Amplitude: 4

$$186) y = \frac{1}{2}\tan(\theta + 135)$$

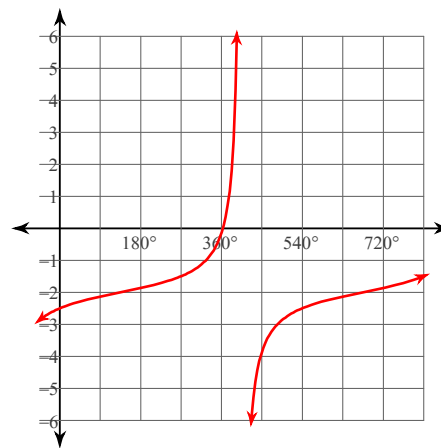


Amplitude: None

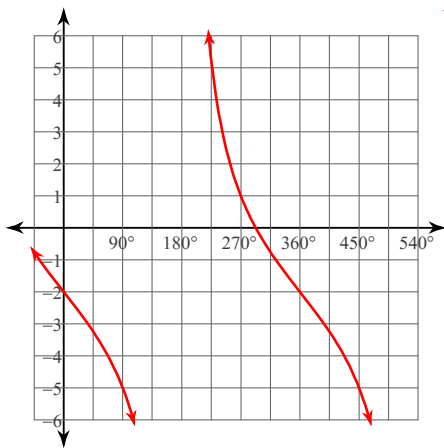
$$187) y = 4\cot\left(\frac{\theta}{2} - 90\right) + 2$$



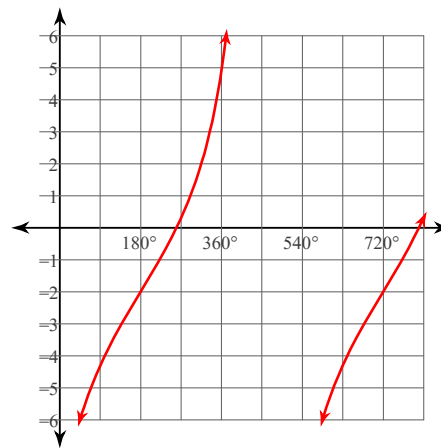
$$188) y = \frac{1}{2}\tan\left(\frac{\theta}{3} + 135\right) - 2$$



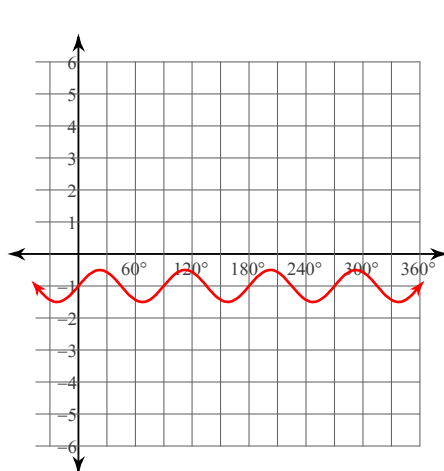
$$189) y = 3\cot\left(\frac{\theta}{2} - 90\right) - 2$$



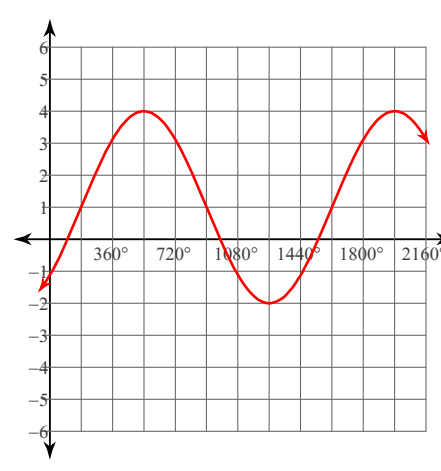
$$190) y = 4\tan\left(\frac{\theta}{3} - 60\right) - 2$$



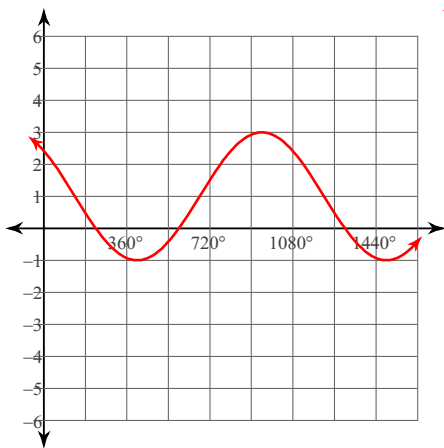
$$191) y = \frac{1}{2}\sin 4\theta - 1$$



$$192) y = 1 + 3\sin\left(\frac{\theta}{4} - 45\right)$$

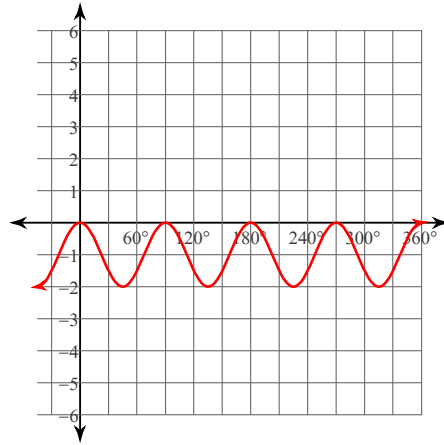


193) $y = 1 + 2\cos\left(\frac{\theta}{3} + 45\right)$



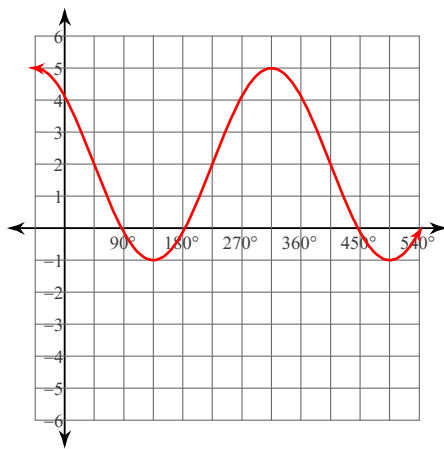
Amplitude: 2

194) $y = \cos 4\theta - 1$



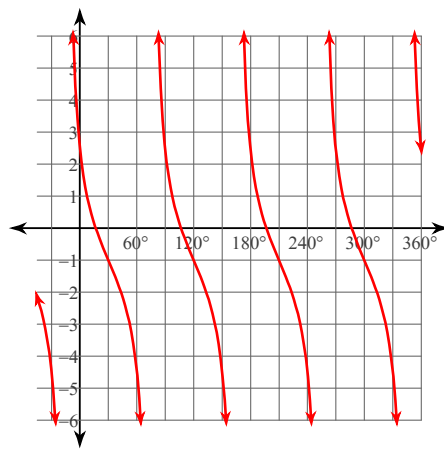
Amplitude: 1

195) $y = 3\sin(\theta + 135) + 2$



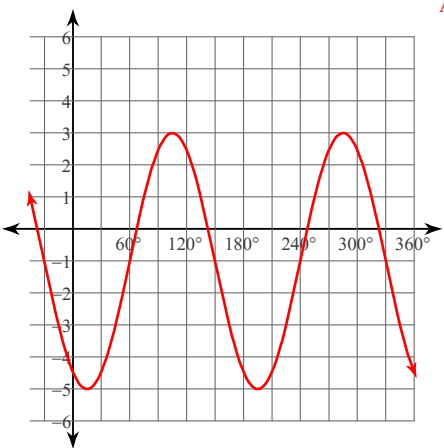
Amplitude: 3

196) $y = 2\cot(2\theta - 150) - 1$



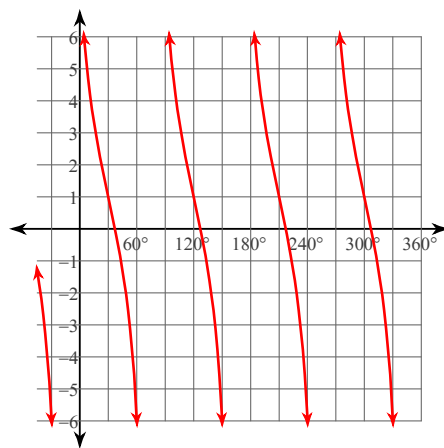
Amplitude: None

197) $y = 4\cos(2\theta + 150) - 1$



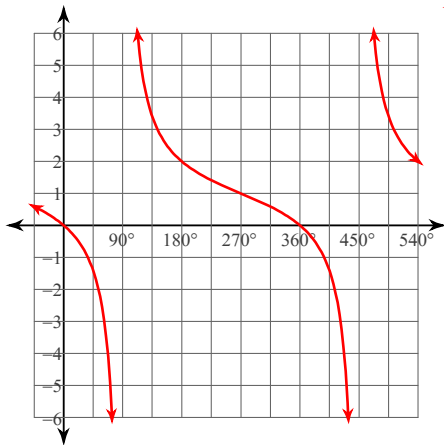
Amplitude: 4

198) $y = 1 + 4\cot(2\theta - 330)$



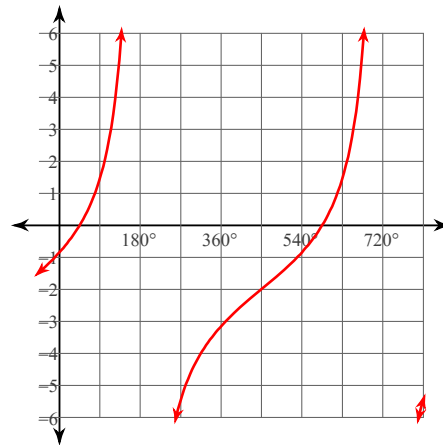
Amplitude: None

$$199) y = \cot\left(\frac{\theta}{2} + 135\right) + 1$$



Amplitude: None

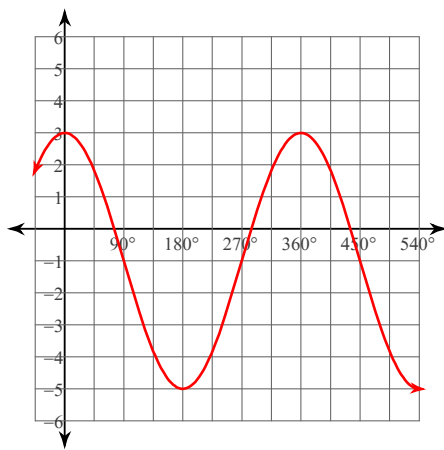
$$200) y = -2 + 2\tan\left(\frac{\theta}{3} - 330\right)$$



Amplitude: None

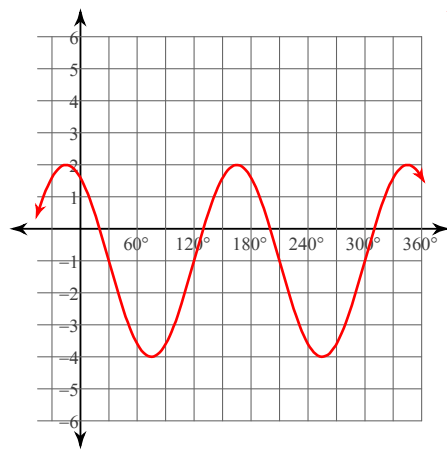
Graph a trigonometric function and find the period of each one

$$201) y = 4\sin(\theta - 270) - 1$$



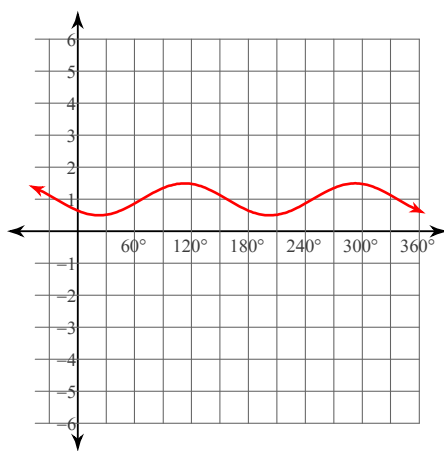
Period: 360

$$202) y = 3\cos(2\theta + 30) - 1$$



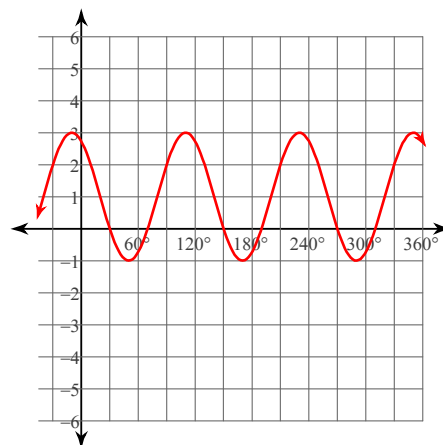
Period: 180

$$203) y = \frac{1}{2}\sin(2\theta - 135) + 1$$



Period: 180

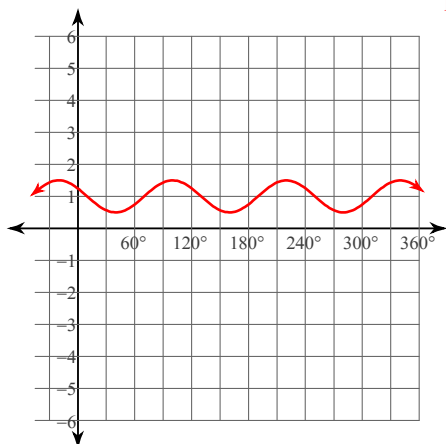
$$204) y = 2\sin(3\theta + 120) + 1$$



Period: 120

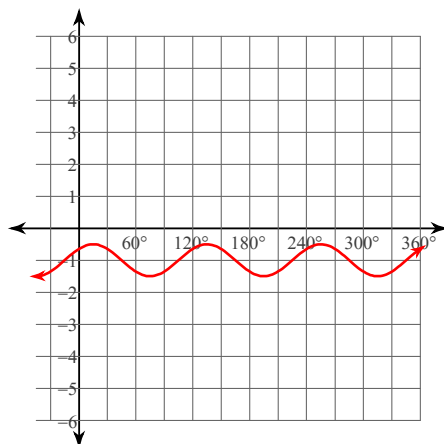
$$205) y = \frac{1}{2} \cos(3\theta + 60) + 1$$

Period: 120



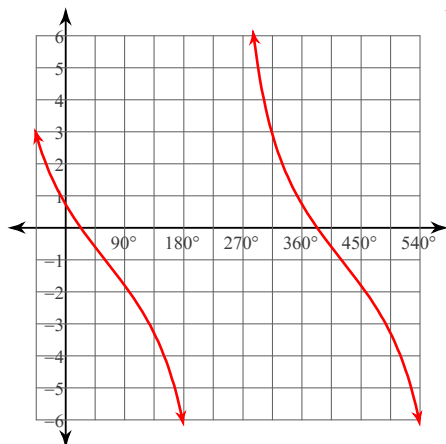
$$206) y = -1 + \frac{1}{2} \cos(3\theta - 45)$$

Period: 120



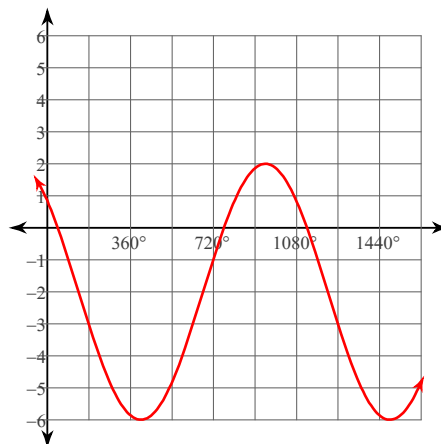
$$207) y = 3 \cot\left(\frac{\theta}{2} - 120\right) - 1$$

Period: 360



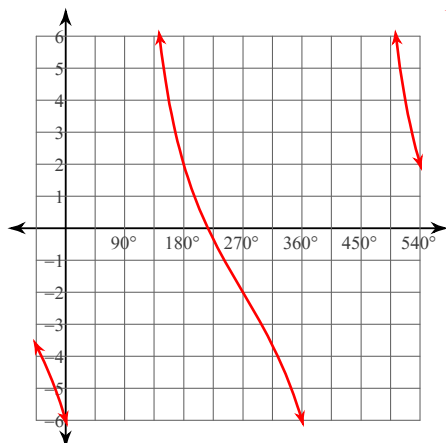
$$208) y = 4 \cos\left(\frac{\theta}{3} + 45\right) - 2$$

Period: 1080



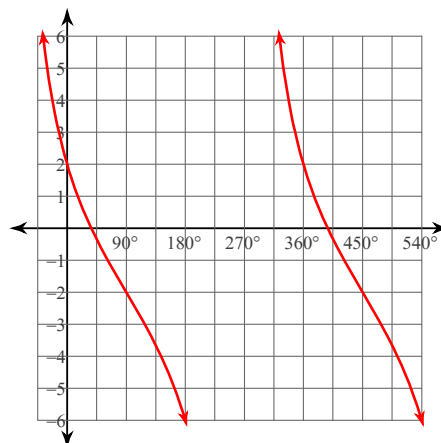
$$209) y = 4 \cot\left(\frac{\theta}{2} + 135\right) - 2$$

Period: 360



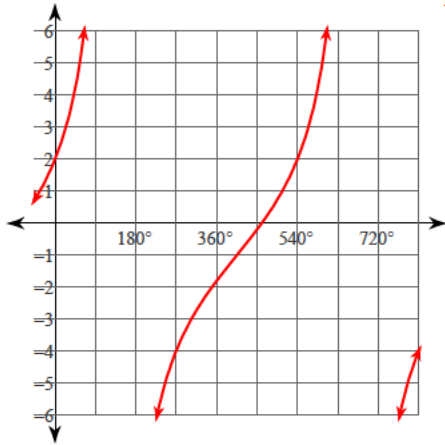
$$210) y = 4 \cot\left(\frac{\theta}{2} + 45\right) - 2$$

Period: 360



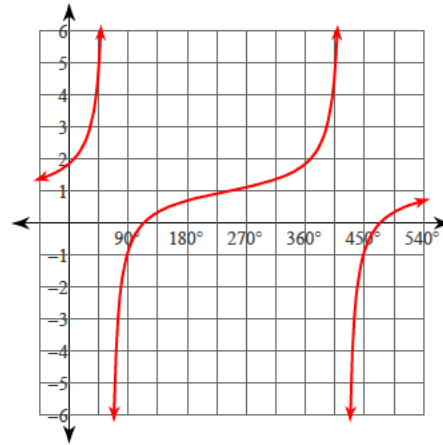
$$211) y = -1 + 3\tan\left(\frac{\theta}{3} - 135\right)$$

Period: 540



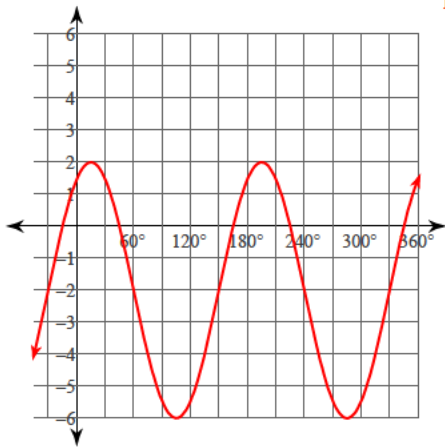
$$212) y = \frac{1}{2}\tan\left(\frac{\theta}{2} - 300\right) + 1$$

Period: 360



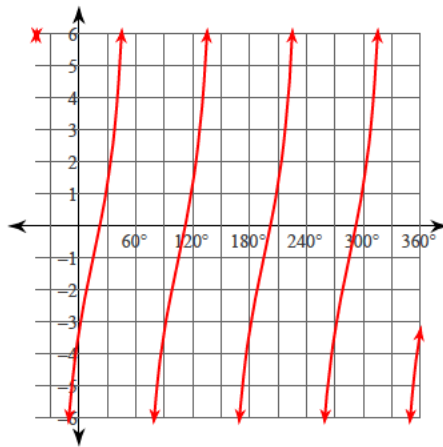
$$213) y = 4\sin(2\theta + 60) - 2$$

Period: 180



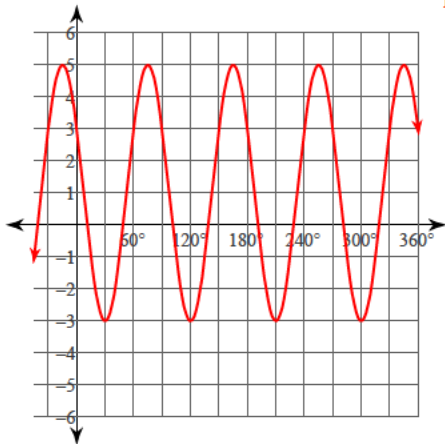
$$214) y = 4\tan(2\theta + 150) - 1$$

Period: 90



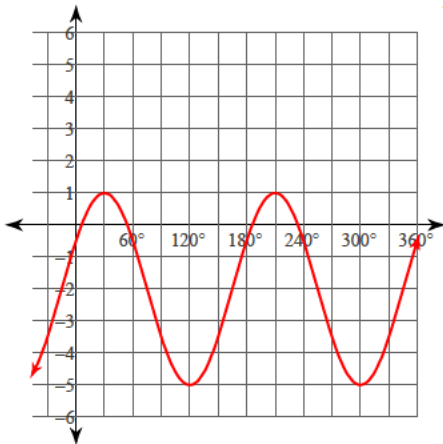
$$215) y = 1 + 4\sin(4\theta + 150)$$

Period: 90



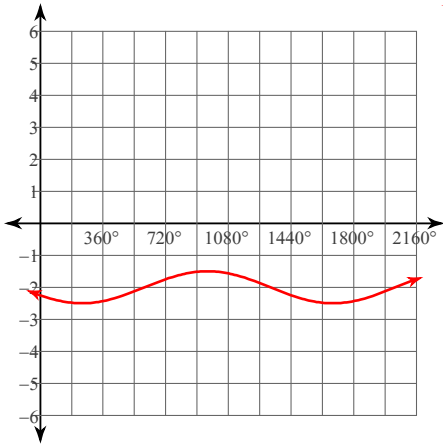
$$216) y = -2 + 3\cos(2\theta - 60)$$

Period: 180



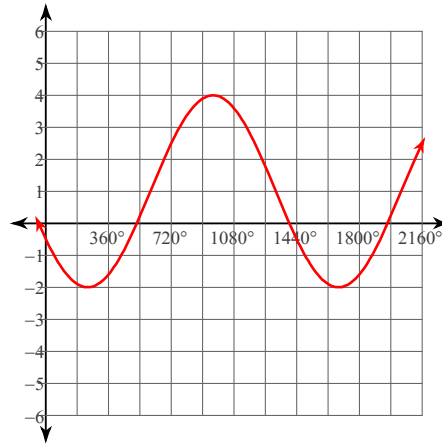
$$217) y = \frac{1}{2} \sin\left(\frac{\theta}{4} + 210\right) - 2$$

Period: 1440



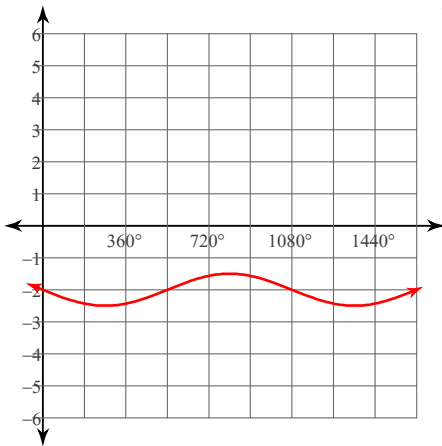
$$218) y = 3 \cos\left(\frac{\theta}{4} + 120\right) + 1$$

Period: 1440



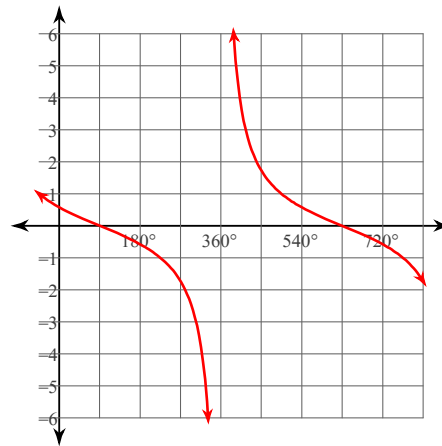
$$219) y = \frac{1}{2} \cos\left(\frac{\theta}{3} - 270\right) - 2$$

Period: 1080



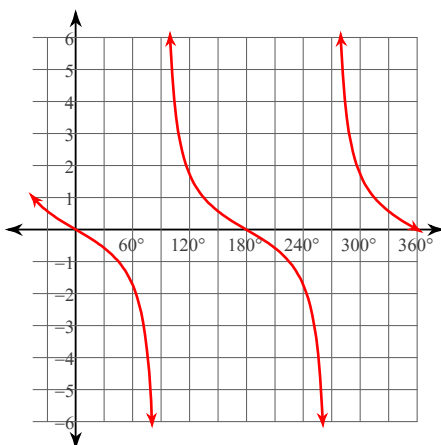
$$220) y = \cot\left(\frac{\theta}{3} + 60\right)$$

Period: 540



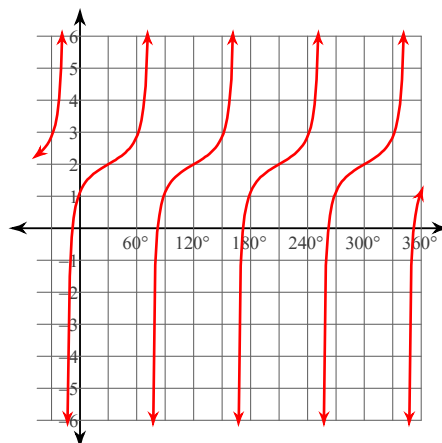
$$221) y = \cot(\theta - 90)$$

Period: 180

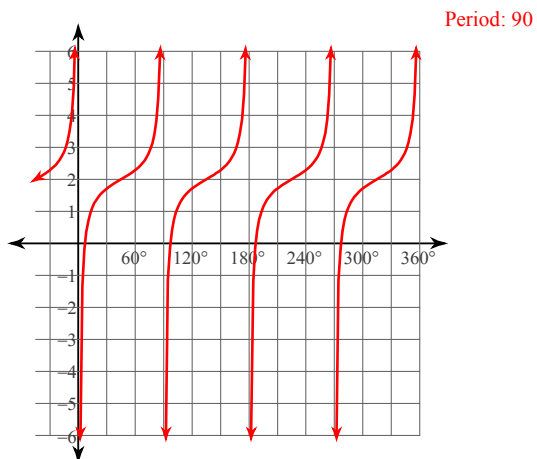


$$222) y = \frac{1}{2} \tan(2\theta + 120) + 2$$

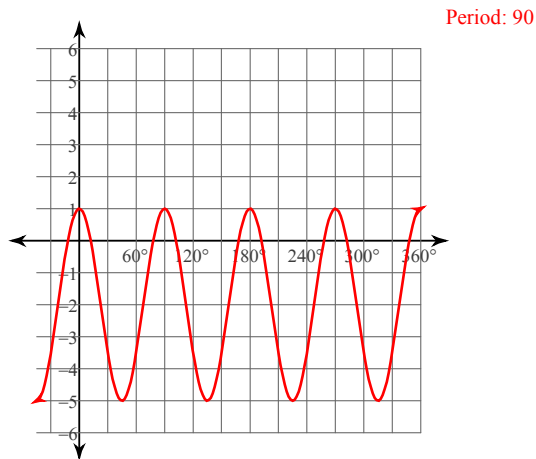
Period: 90



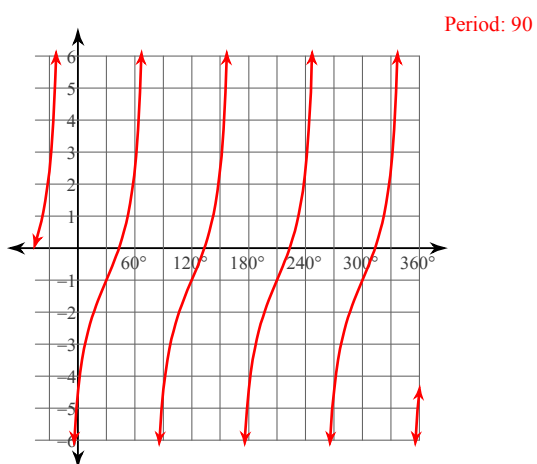
$$223) y = \frac{1}{2} \tan(2\theta + 90) + 2$$



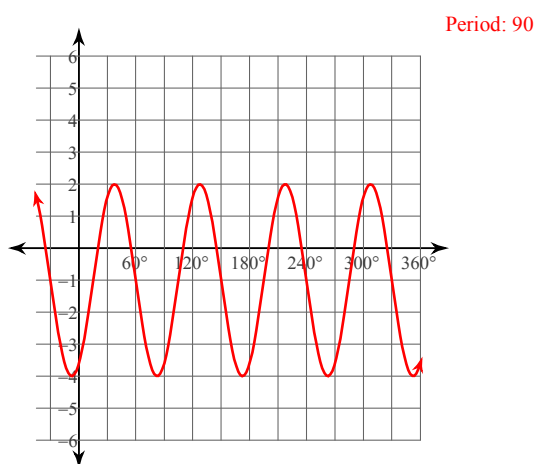
$$224) y = 3 \sin(4\theta + 90) - 2$$



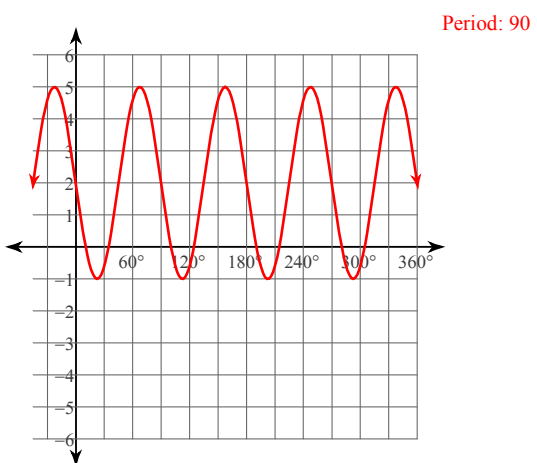
$$225) y = -1 + 2 \tan(2\theta - 240)$$



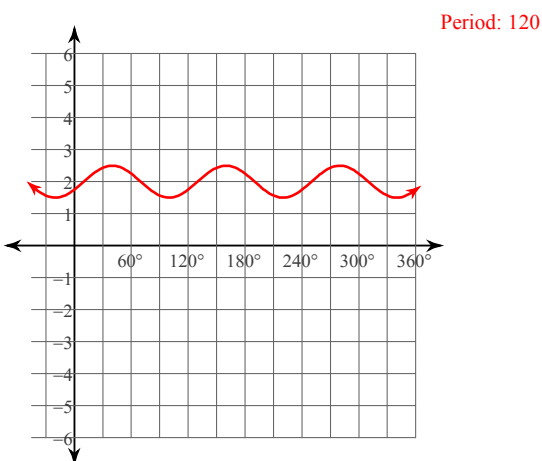
$$226) y = -1 + 3 \sin(4\theta - 60)$$



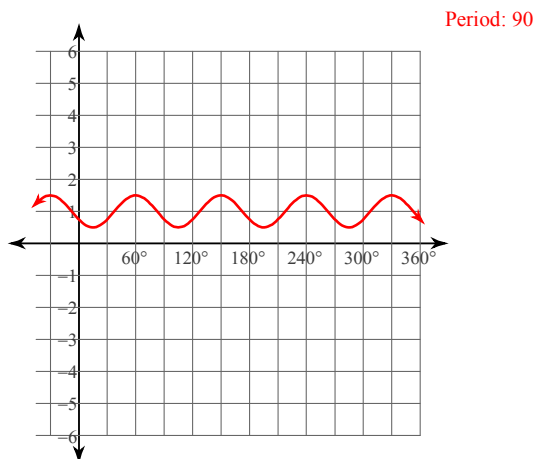
$$227) y = 3 \cos(4\theta + 90) + 2$$



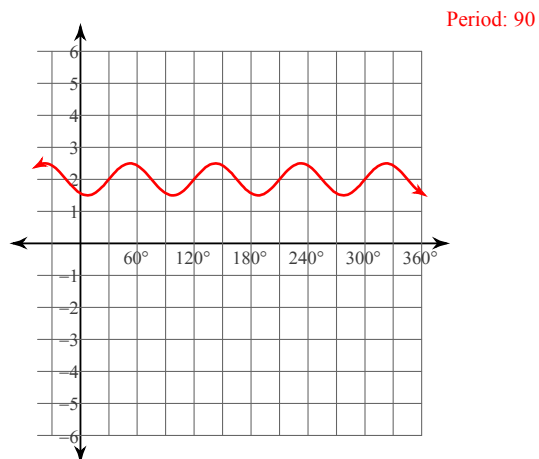
$$228) y = \frac{1}{2} \cos(3\theta - 120) + 2$$



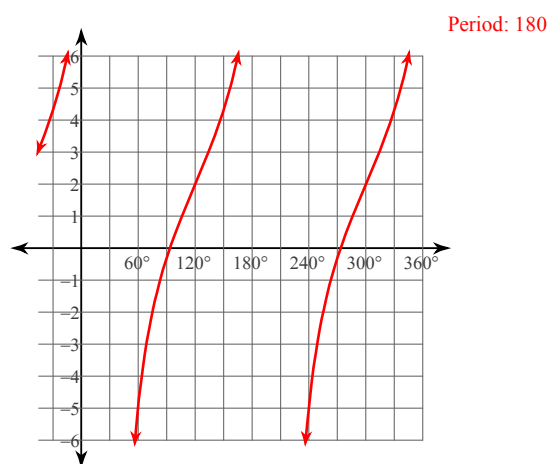
$$229) y = \frac{1}{2} \cos(4\theta + 120) + 1$$



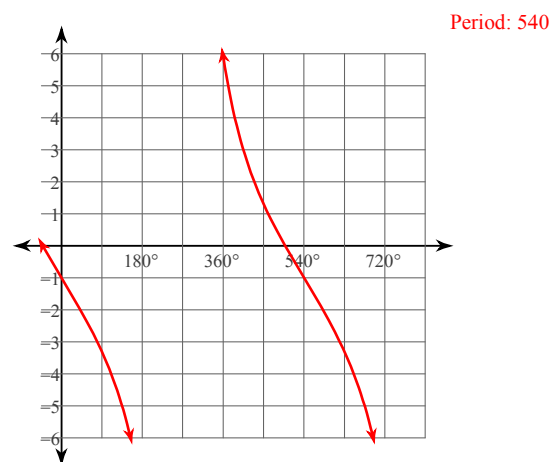
$$230) y = 2 + \frac{1}{2} \cos(4\theta + 150)$$



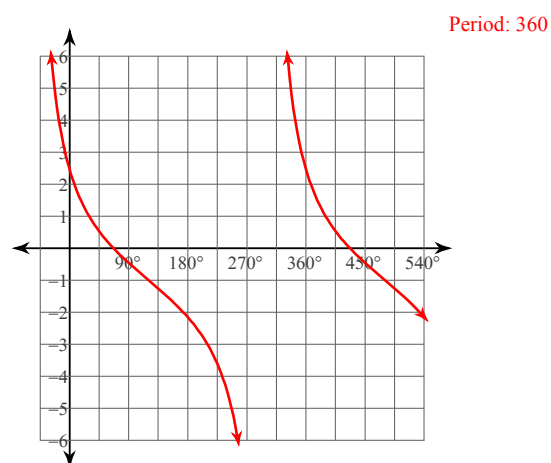
$$231) y = 4 \tan(\theta + 60) + 2$$



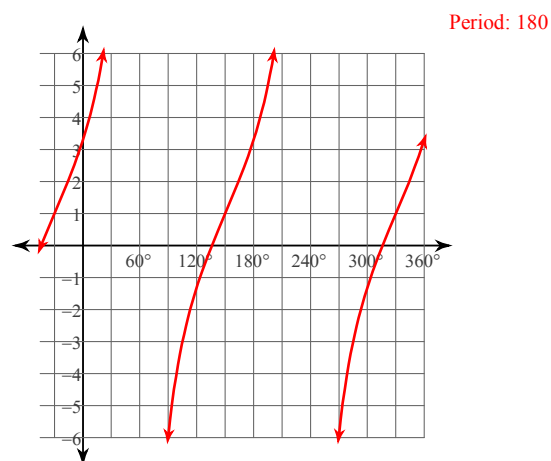
$$232) y = -1 + 4 \cot\left(\frac{\theta}{3} + 90\right)$$



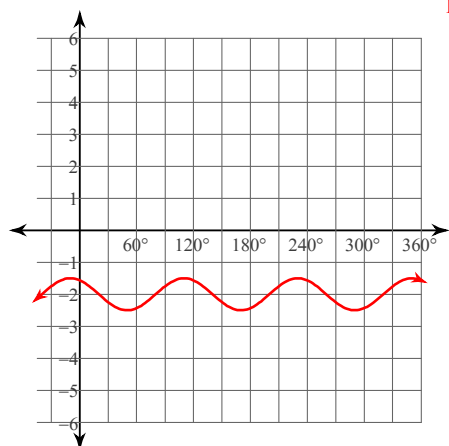
$$233) y = 2 \cot\left(\frac{\theta}{2} + 30\right) - 1$$



$$234) y = 4 \tan(\theta - 330) + 1$$

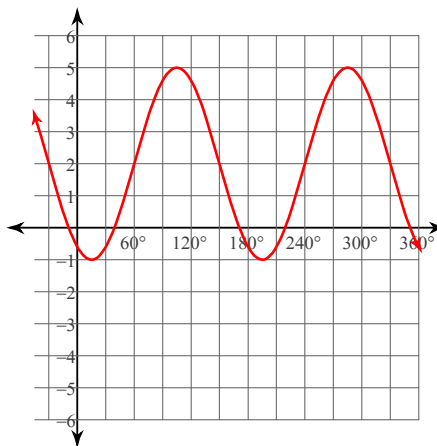


$$235) y = \frac{1}{2} \sin(3\theta + 120) - 2$$



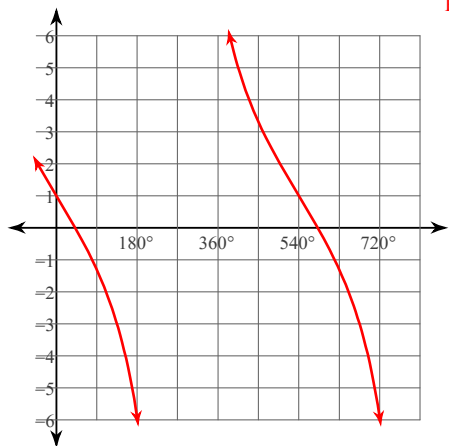
Period: 120

$$236) y = 3 \sin(2\theta + 240) + 2$$



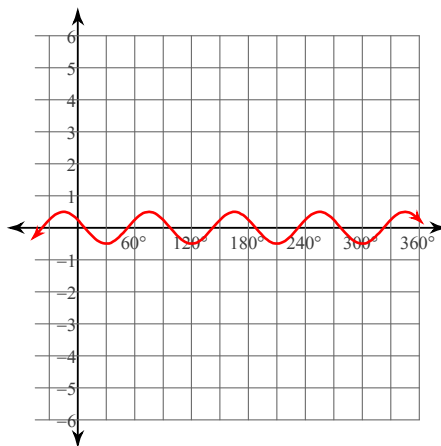
Period: 180

$$237) y = 4 \cot\left(\frac{\theta}{3} - 90\right) + 1$$



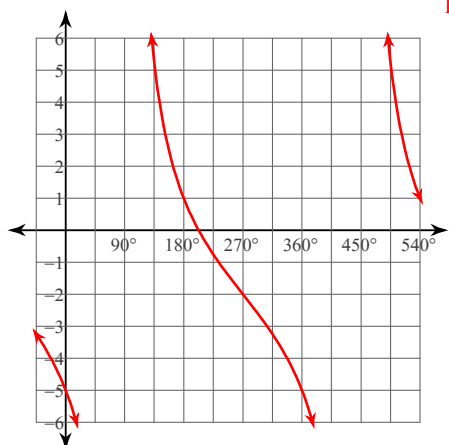
Period: 540

$$238) y = \frac{1}{2} \cos(4\theta + 60)$$



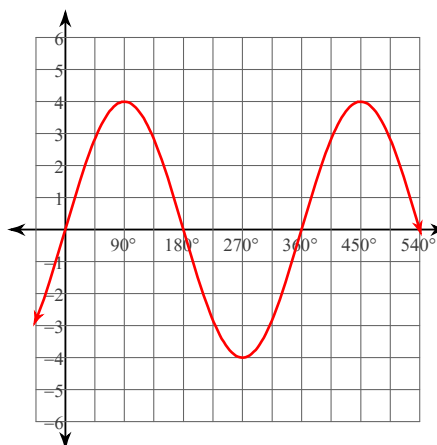
Period: 90

$$239) y = 3 \cot\left(\frac{\theta}{2} - 45\right) - 2$$



Period: 360

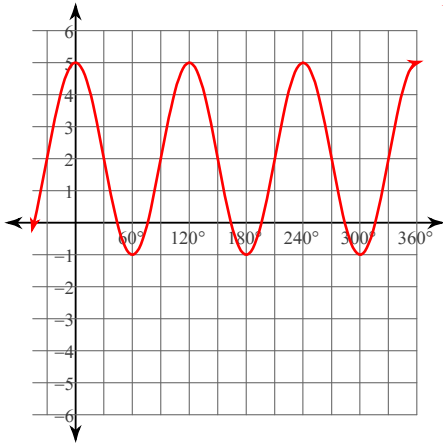
$$240) y = 4 \sin \theta$$



Period: 360

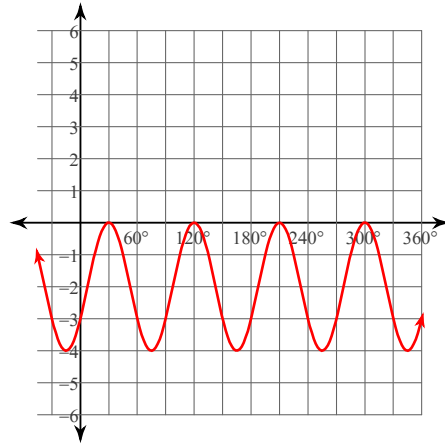
241) $y = 3\cos 3\theta + 2$

Period: 120



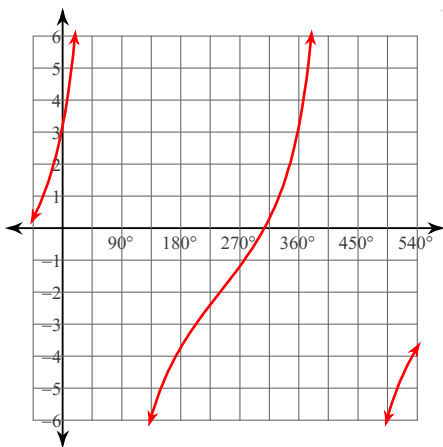
242) $y = 2\cos(4\theta - 120) - 2$

Period: 90



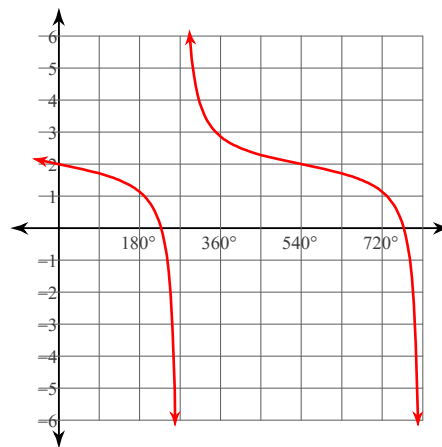
243) $y = 3\tan\left(\frac{\theta}{2} + 60\right) - 2$

Period: 360



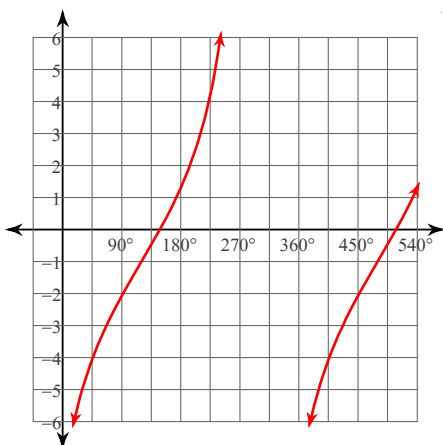
244) $y = \frac{1}{2}\cot\left(\frac{\theta}{3} + 270\right) + 2$

Period: 540



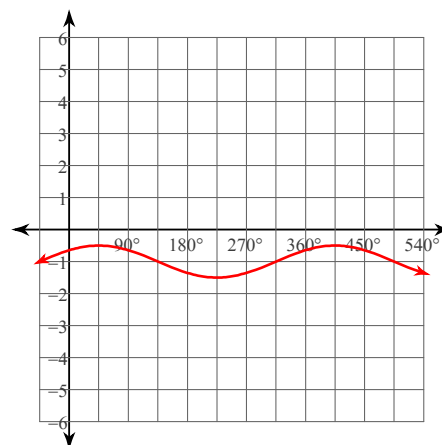
245) $y = 4\tan\left(\frac{\theta}{2} - 60\right) - 1$

Period: 360



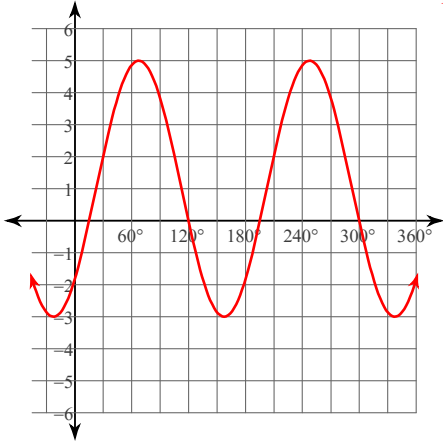
246) $y = \frac{1}{2}\sin(\theta + 45) - 1$

Period: 360



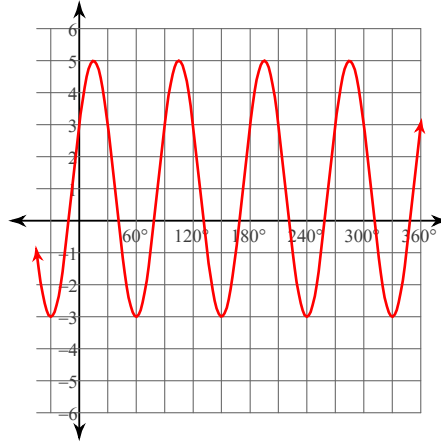
$$247) y = 4\cos(2\theta + 225) + 1$$

Period: 180



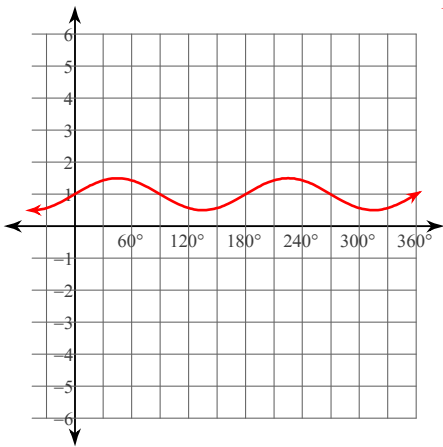
$$248) y = 4\sin(4\theta + 30) + 1$$

Period: 90



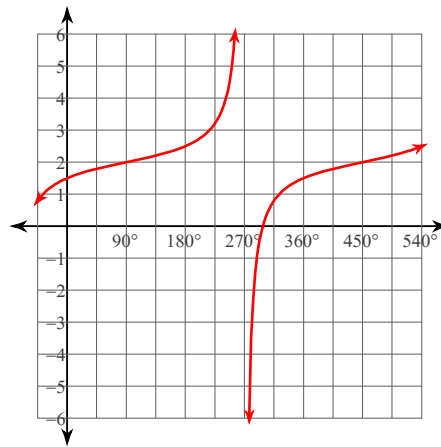
$$249) y = \frac{1}{2}\cos(2\theta - 90) + 1$$

Period: 180



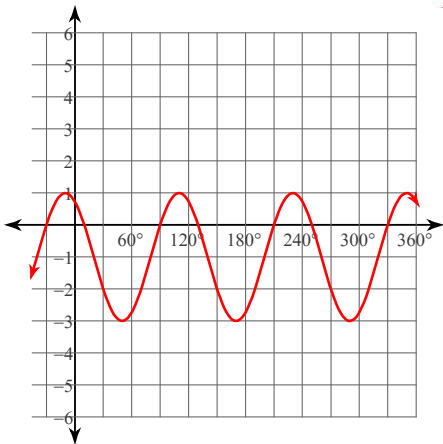
$$250) y = \frac{1}{2}\tan\left(\frac{\theta}{2} + 135\right) + 2$$

Period: 360



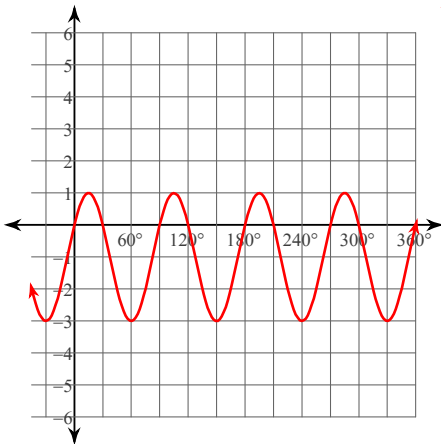
$$251) y = 2\cos(3\theta + 30) - 1$$

Period: 120



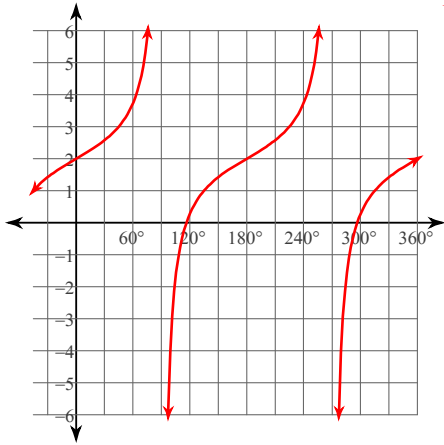
$$252) y = 2\cos(4\theta - 60) - 1$$

Period: 90



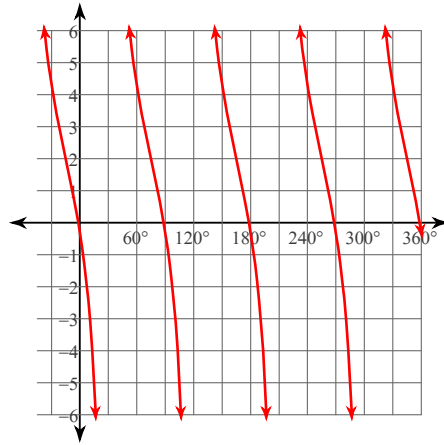
253) $y = \tan \theta + 2$

Period: 180



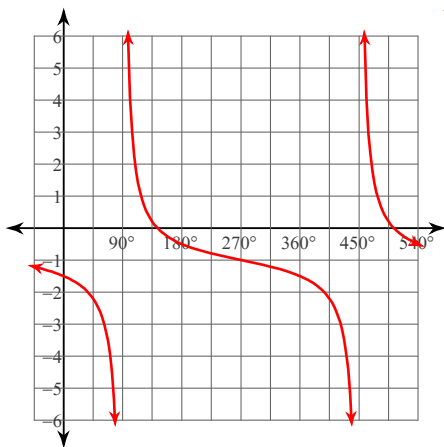
254) $y = 4\cot(2\theta - 60) + 2$

Period: 90



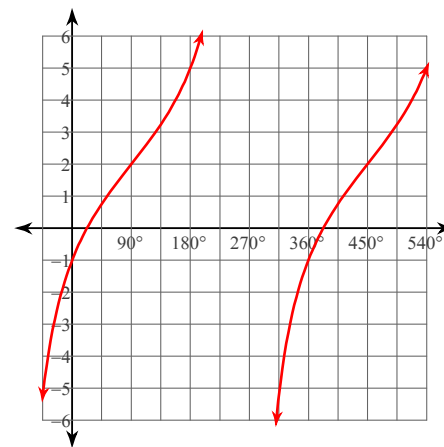
255) $y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 135\right) - 1$

Period: 360



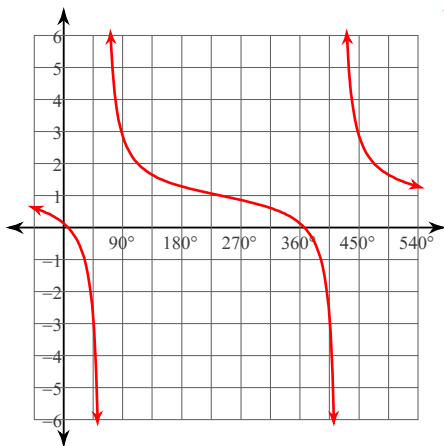
256) $y = 3\tan\left(\frac{\theta}{2} + 135\right) + 2$

Period: 360



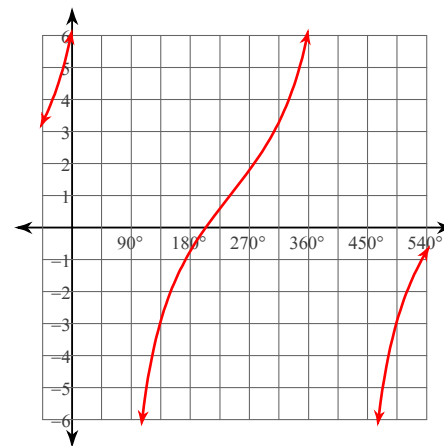
257) $y = \frac{1}{2}\cot\left(\frac{\theta}{2} + 150\right) + 1$

Period: 360



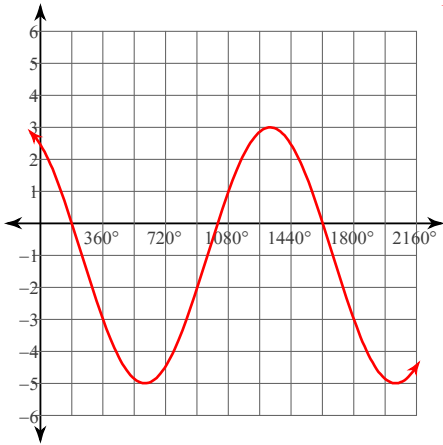
258) $y = 1 + 3\tan\left(\frac{\theta}{2} + 60\right)$

Period: 360



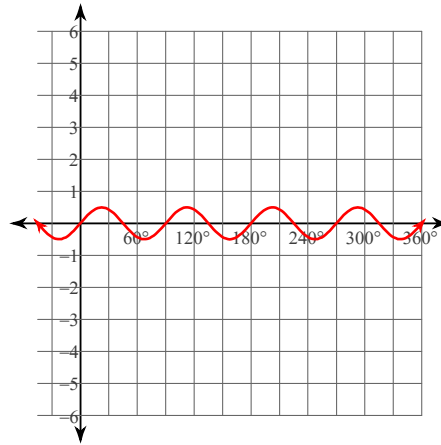
$$259) y = 4\sin\left(\frac{\theta}{4} + 120\right) - 1$$

Period: 1440



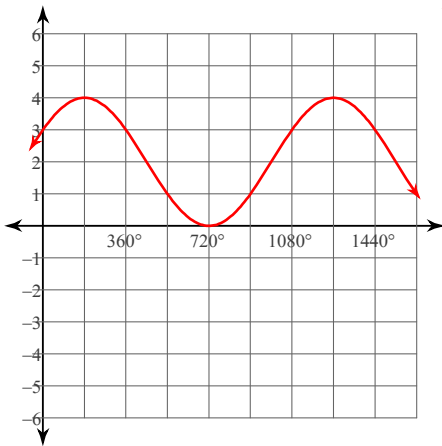
$$260) y = \frac{1}{2}\sin 4\theta$$

Period: 90



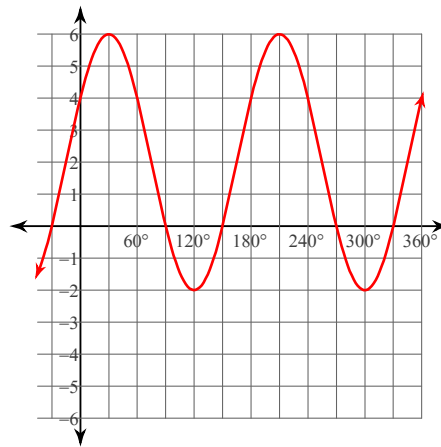
$$261) y = 2\cos\left(\frac{\theta}{3} - 60\right) + 2$$

Period: 1080



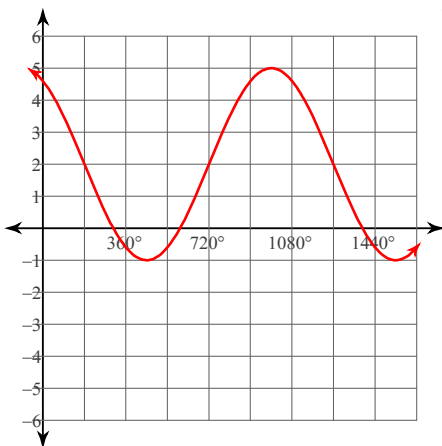
$$262) y = 4\cos(2\theta - 60) + 2$$

Period: 180



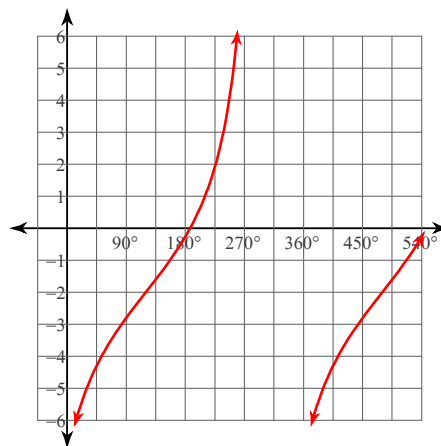
$$263) y = 3\cos\left(\frac{\theta}{3} + 30\right) + 2$$

Period: 1080



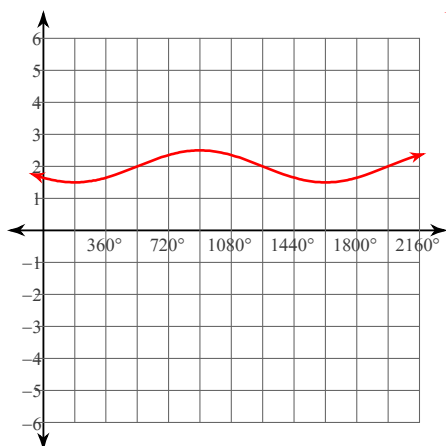
$$264) y = 3\tan\left(\frac{\theta}{2} + 120\right) - 2$$

Period: 360



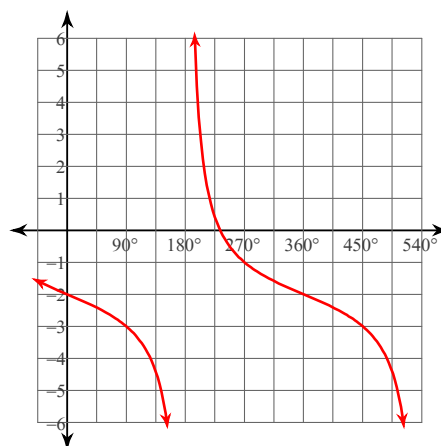
$$265) y = \frac{1}{2} \sin\left(\frac{\theta}{4} - 135\right) + 2$$

Period: 1440



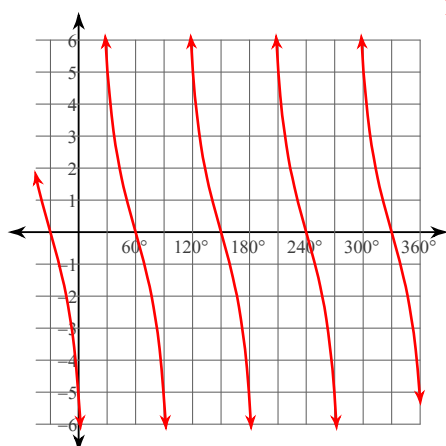
$$266) y = \cot\left(\frac{\theta}{2} + 90\right) - 2$$

Period: 360



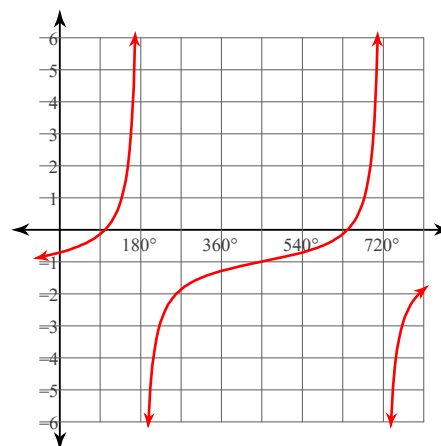
$$267) y = 3 \cot(2\theta - 30)$$

Period: 90



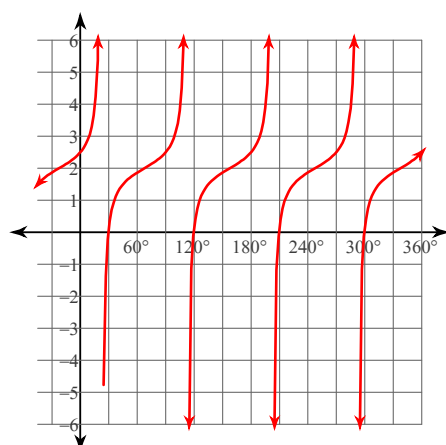
$$268) y = \frac{1}{2} \tan\left(\frac{\theta}{3} + 30\right) - 1$$

Period: 540



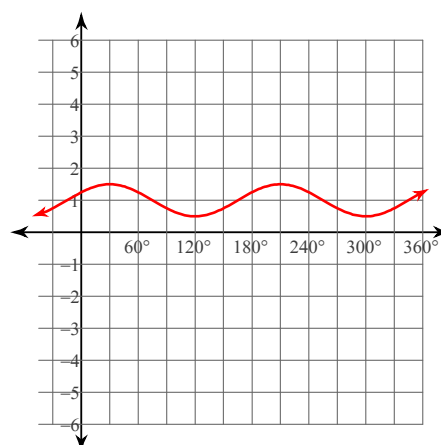
$$269) y = \frac{1}{2} \tan(2\theta + 45) + 2$$

Period: 90



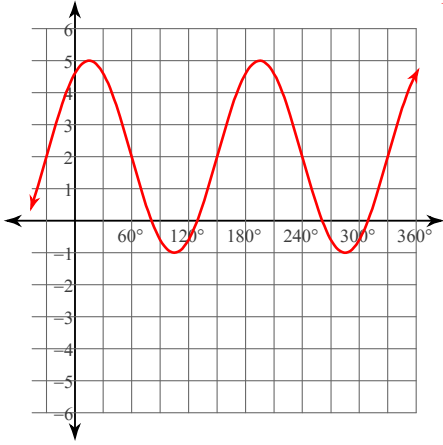
$$270) y = \frac{1}{2} \sin(2\theta + 30) + 1$$

Period: 180



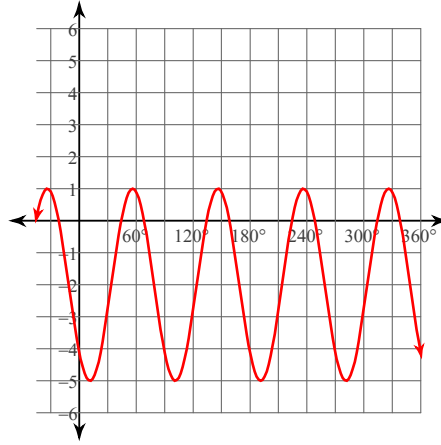
$$271) y = 3\cos(2\theta - 30) + 2$$

Period: 180



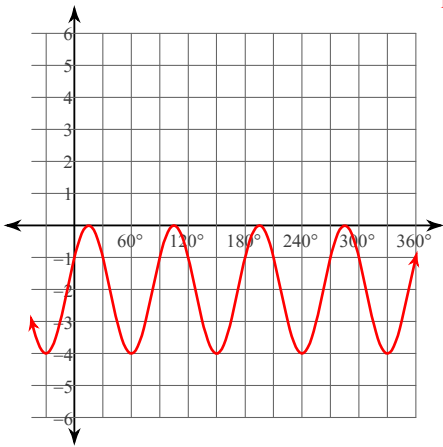
$$272) y = 3\sin(4\theta - 135) - 2$$

Period: 90



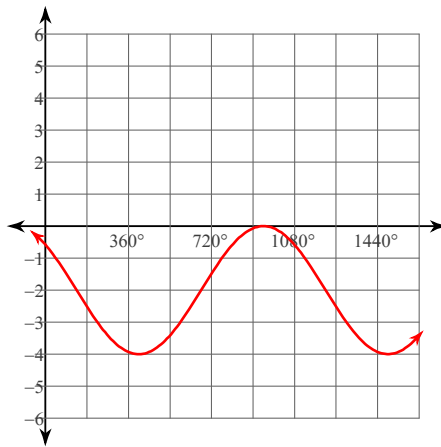
$$273) y = -2 + 2\cos(4\theta - 60)$$

Period: 90



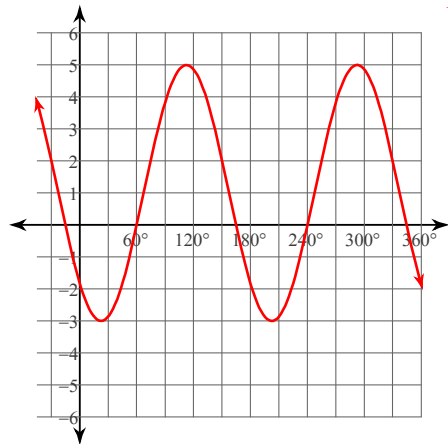
$$274) y = 2\cos\left(\frac{\theta}{3} + 45\right) - 2$$

Period: 1080



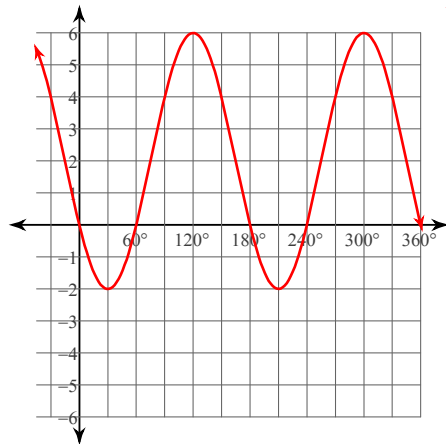
$$275) y = 4\sin(2\theta - 135) + 1$$

Period: 180

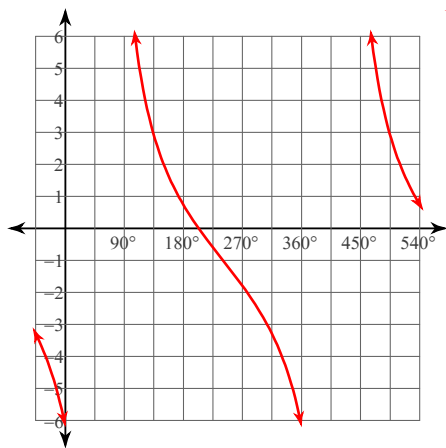


$$276) y = 4\cos(2\theta + 120) + 2$$

Period: 180

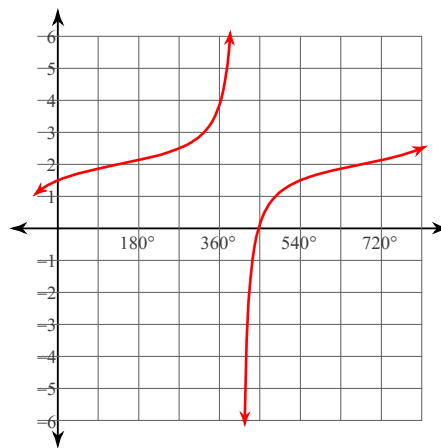


$$277) y = -1 + 3\cot\left(\frac{\theta}{2} - 30\right)$$



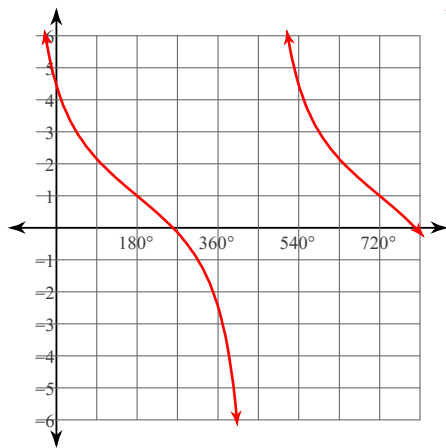
Period: 360

$$278) y = \frac{1}{2}\tan\left(\frac{\theta}{3} + 135\right) + 2$$



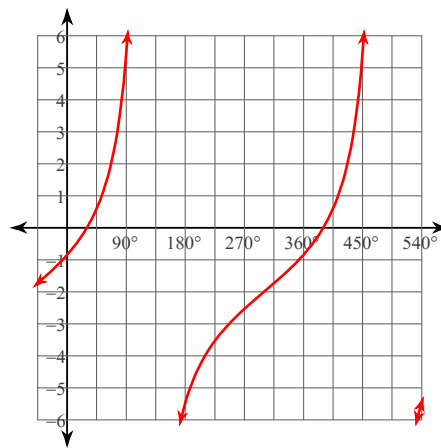
Period: 540

$$279) y = 2\cot\left(\frac{\theta}{3} + 30\right) + 1$$



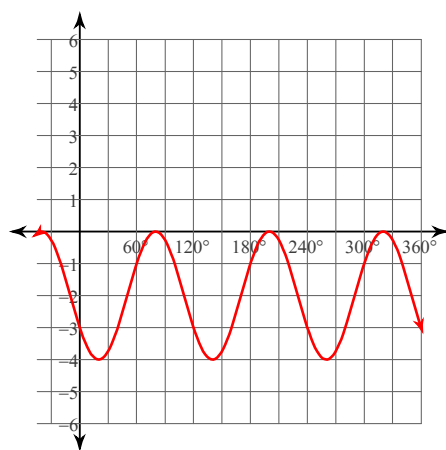
Period: 540

$$280) y = 2\tan\left(\frac{\theta}{2} - 150\right) - 2$$



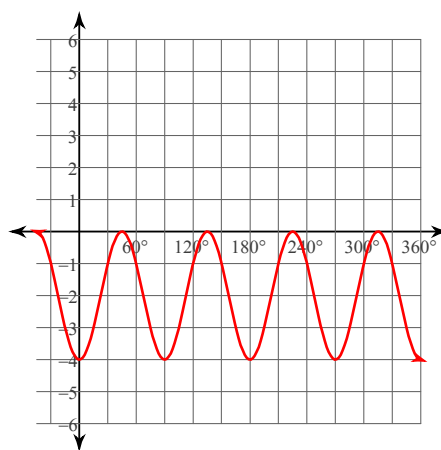
Period: 360

$$281) y = 2\sin(3\theta - 150) - 2$$



Period: 120

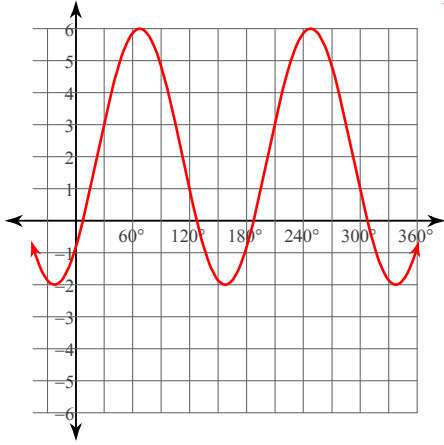
$$282) y = 2\sin(4\theta - 90) - 2$$



Period: 90

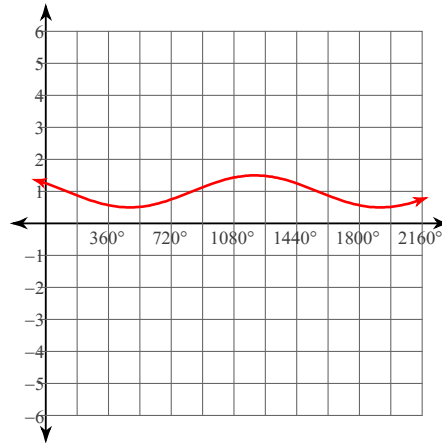
$$283) y = 2 + 4\cos(2\theta + 225)$$

Period: 180



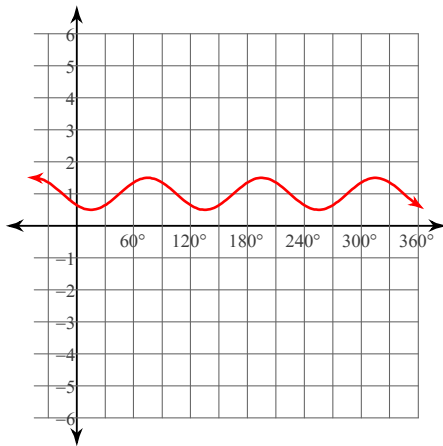
$$284) y = 1 + \frac{1}{2}\cos\left(\frac{\theta}{4} - 300\right)$$

Period: 1440



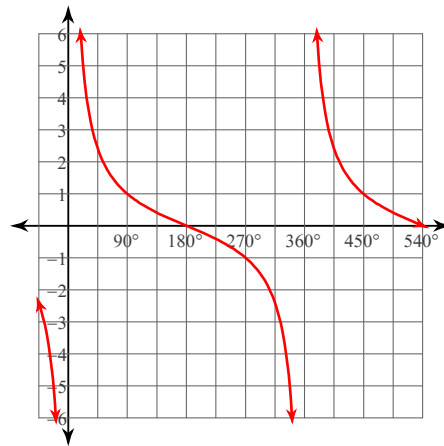
$$285) y = \frac{1}{2}\sin(3\theta + 225) + 1$$

Period: 120



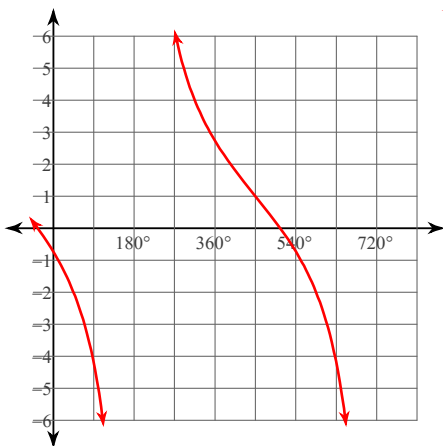
$$286) y = \cot\frac{\theta}{2}$$

Period: 360



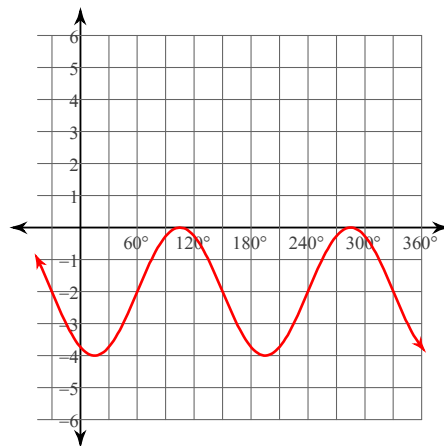
$$287) y = 3\cot\left(\frac{\theta}{3} + 120\right) + 1$$

Period: 540

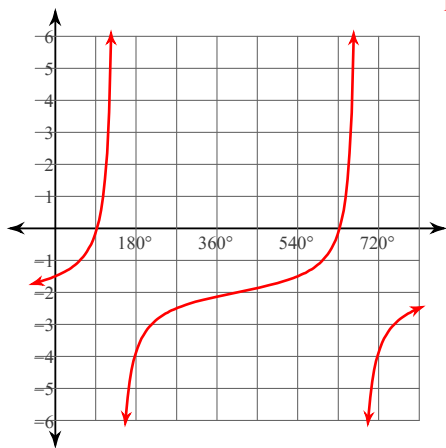


$$288) y = 2\cos(2\theta + 150) - 2$$

Period: 180

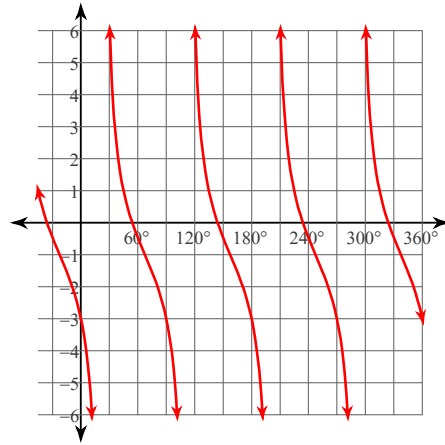


$$289) y = \frac{1}{2} \tan\left(\frac{\theta}{3} - 135\right) - 2$$



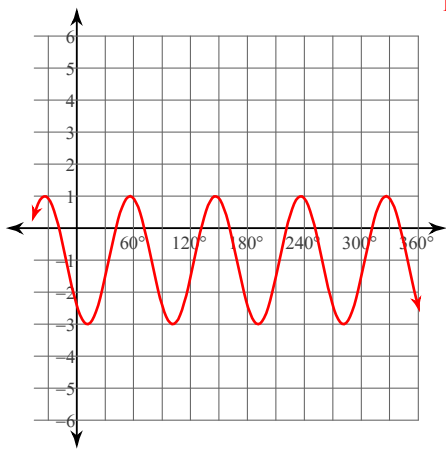
Period: 540

$$290) y = 2 \cot(2\theta + 135) - 1$$



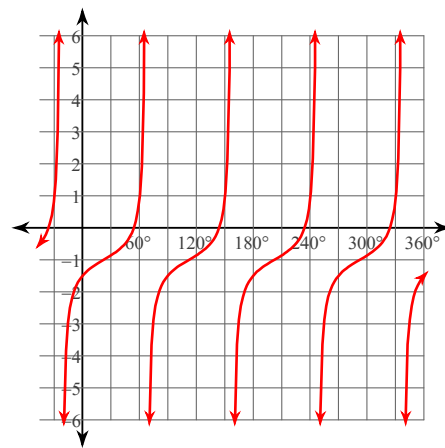
Period: 90

$$291) y = 2 \sin(4\theta - 135) - 1$$



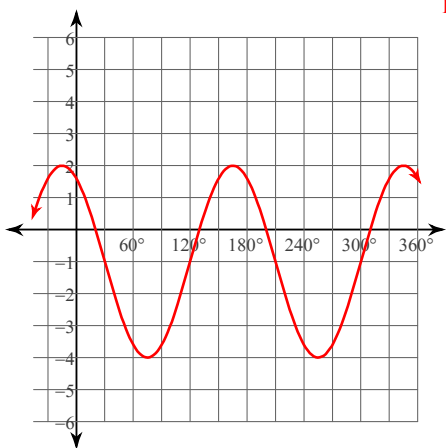
Period: 90

$$292) y = -1 + \frac{1}{2} \tan(2\theta + 135)$$



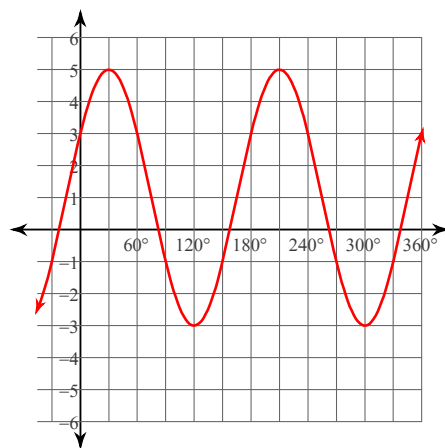
Period: 90

$$293) y = -1 + 3 \sin(2\theta + 120)$$



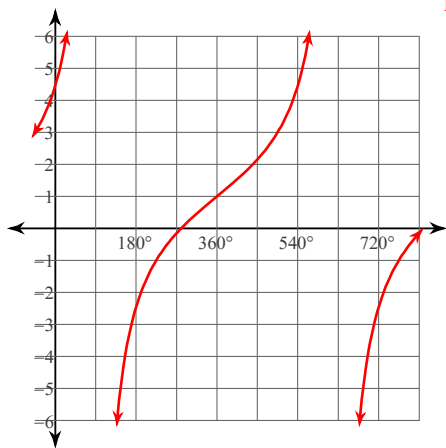
Period: 180

$$294) y = 1 + 4 \cos(2\theta - 60)$$



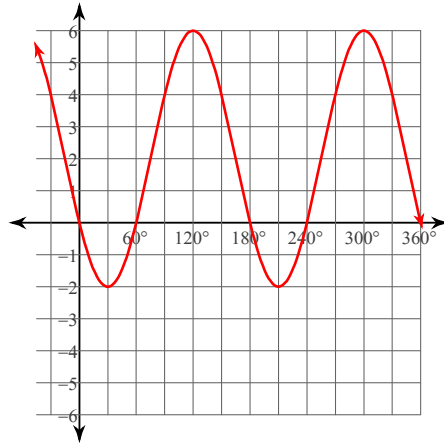
Period: 180

295) $y = 1 + 2\tan\left(\frac{\theta}{3} - 300\right)$



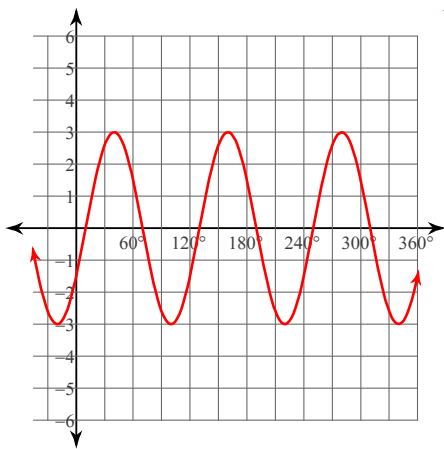
Period: 540

296) $y = 4\cos(2\theta - 240) + 2$



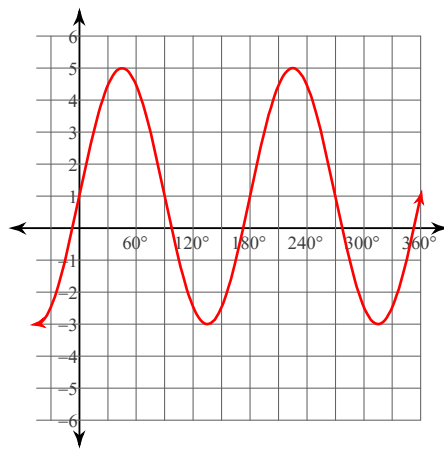
Period: 180

297) $y = 3\cos(3\theta - 120)$



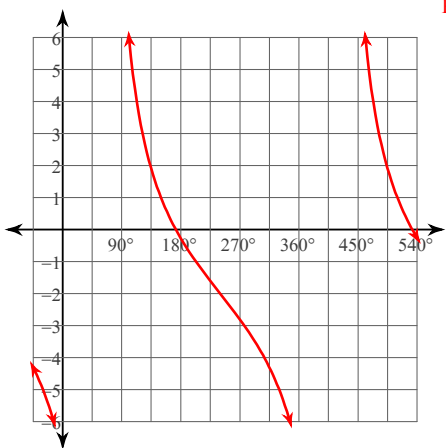
Period: 120

298) $y = 1 + 4\cos(2\theta - 90)$



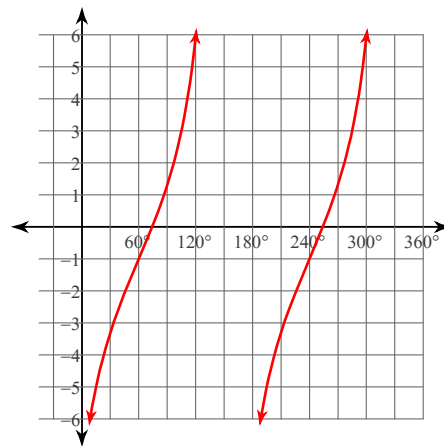
Period: 180

299) $y = 3\cot\left(\frac{\theta}{2} - 30\right) - 2$



Period: 360

300) $y = 4\tan(\theta - 60) - 1$



Period: 180