

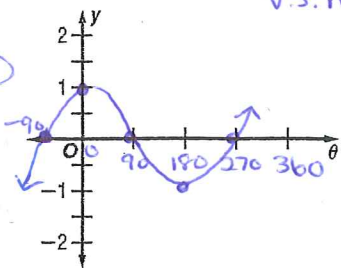
14-2 Skills Practice

Translations of Trigonometric Graphs

State the vertical shift, amplitude, period, and phase shift of each function. Then graph the function.

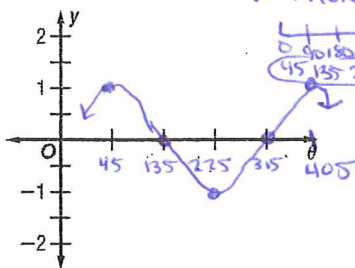
1. $y = \sin(\theta + 90^\circ)$

amp=1
period=360
P.S. left 90
V.S. none



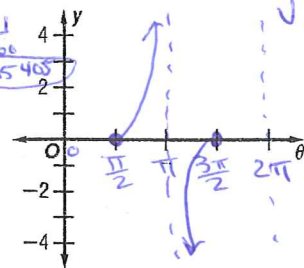
2. $y = \cos(\theta - 45^\circ)$

amp=1
period=360
P.S. right 45
V.S. none



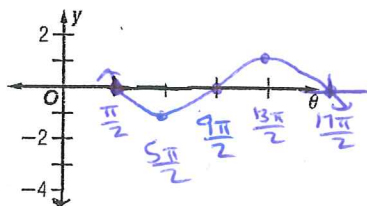
3. $y = \tan(\theta - \frac{\pi}{2})$

amp=none
period=pi
P.S. right pi/2
V.S. none



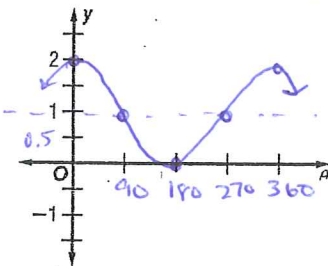
4. $y = -\sin[\frac{1}{4}(\theta - \frac{\pi}{2})]$

amp=1
period=8pi
P.S. right pi/2
V.S. none



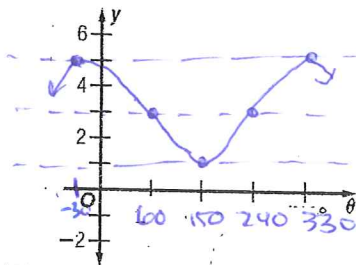
5. $y = \cos \theta + 1$

amp=1
period=360
P.S. none
V.S. up 1



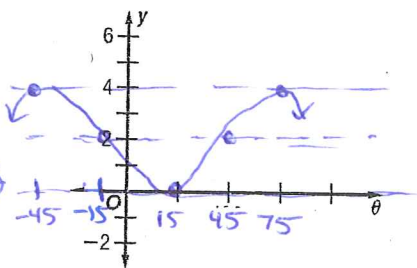
6. $y = 2 \cos(\theta + 30^\circ) + 3$

amp=2
period=360
P.S. left 30
V.S. up 3



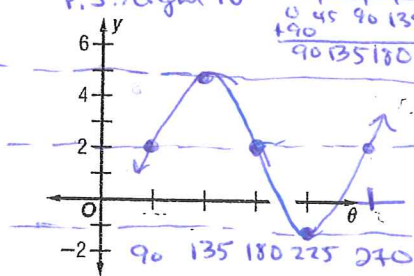
7. $y = 2 \cos[3(\theta + 45^\circ)] + 2$

amp=2
period=120
P.S. left 45
V.S. up 2



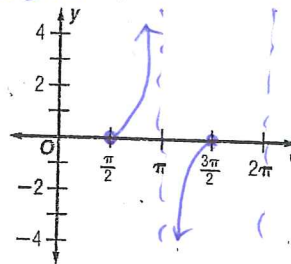
8. $y = 3 \sin[2(\theta - 90^\circ)] + 2$

amp=3
period=180
P.S. right 90
V.S. up 2



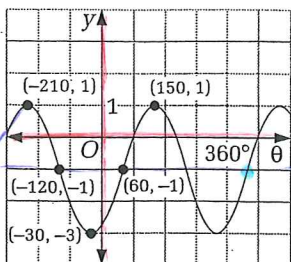
9. $y = \frac{1}{2} \tan(\theta - \frac{\pi}{2})$

amp none
period=pi
P.S. right pi/2
V.S. none

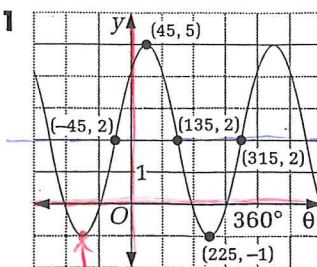


Write an equation for each graph. (sine or cosine)

10.



11.



10. $y = 2 \sin(\theta + 300) - 1$
 $y = 2 \cos(\theta + 210) - 1$

11. $y = 3 \sin(\theta + 145) + 2$
 $y = -3 \cos(\theta + 135) + 2$

14-2 Study Guide and Intervention

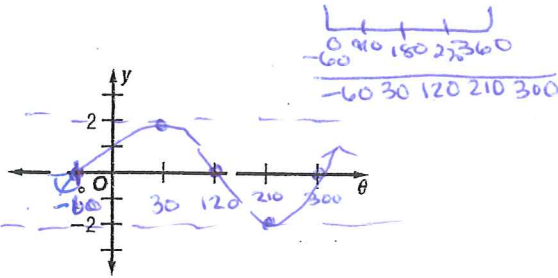
Translations of Trigonometric Graphs

EXERCISES

State the amplitude, period, and phase shift for each function. Then graph the function.

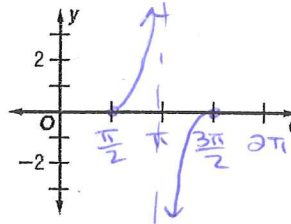
1. $y = 2 \sin(\theta + 60^\circ)$

amp 2
period 360
P.S. left 60



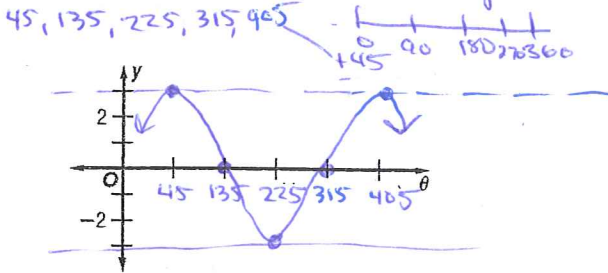
2. $y = \tan\left(\theta - \frac{\pi}{2}\right)$

amp none
period π
P.S. right $\frac{\pi}{2}$



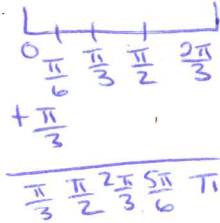
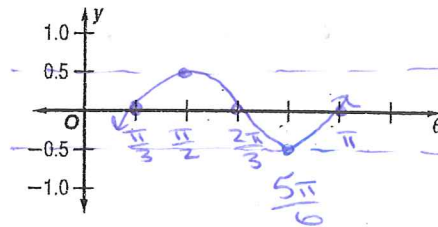
3. $y = 3 \cos(\theta - 45^\circ)$

amp = 3
period = 360
P.S. right 45



4. $y = \frac{1}{2} \sin 3\left(\theta - \frac{\pi}{3}\right)$

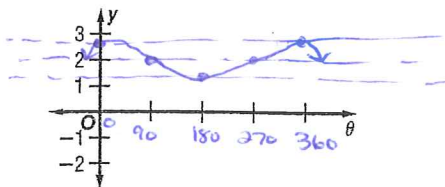
amp = 1/2
period = $\frac{2\pi}{3}$
P.S. right $\frac{\pi}{3}$



State the vertical shift, equation of the midline, amplitude, and period for each function. Then graph the function.

5. $y = \frac{1}{2} \cos \theta + 2$

amp = 1/2
y = 2 midline
V.S. up 2
period = 360



6. $y = 3 \sin \theta - 2$

amp = 3
midline y = -2
V.S. down 2
period 360

