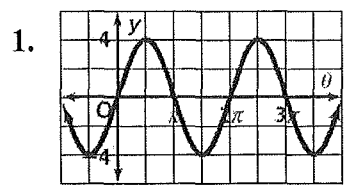
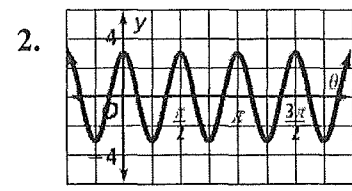


Practice 13-4 and 13-5 **Sine and Cosine Functions**

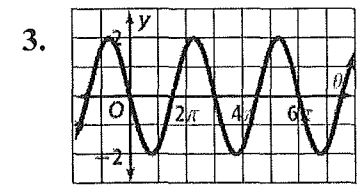
Find the amplitude and period of each curve. Then write an equation for each curve.



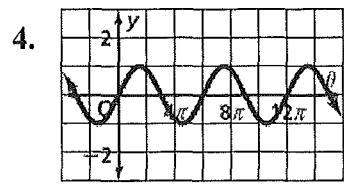
Amp: 4
 Period: 2π
 Equation: $y = 4\sin\theta$



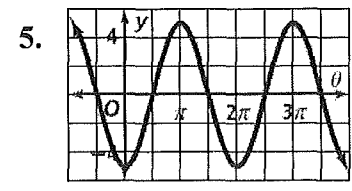
Amp: 3
 Period: $\pi/2$
 Equation: $y = 3\cos 4\theta$



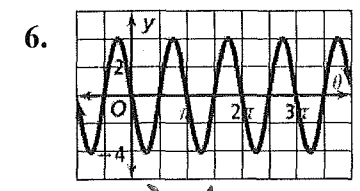
Amp: 2
 Period: 3π
 Equation: $y = -2\sin^{2/3}\theta$



Amp: 1
 Period: 6π
 Equation: $y = \sin^{1/3}\theta$

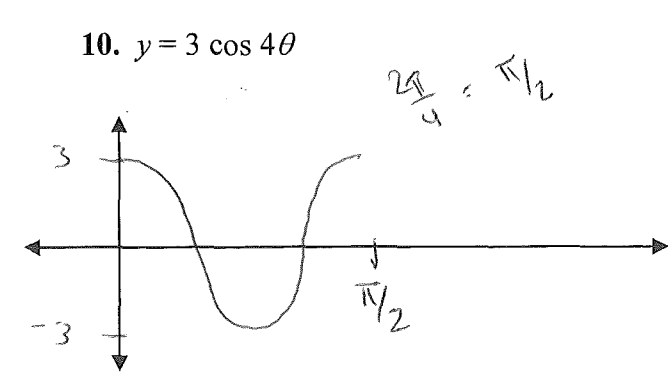
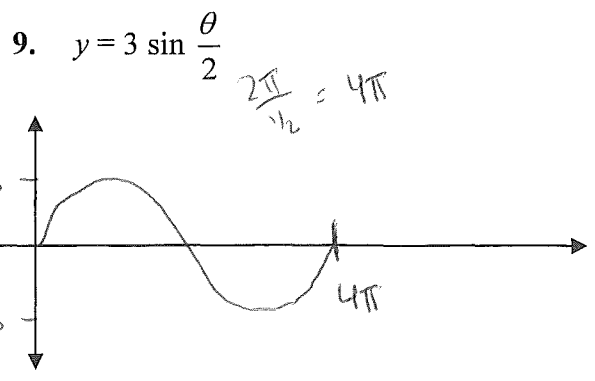
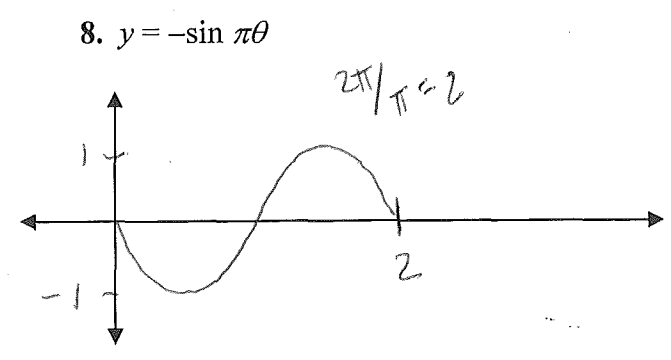
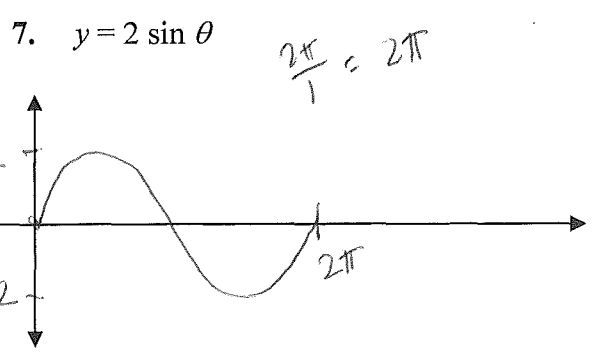


Amp: 5
 Period: 2π
 Equation: $y = -5\cos\theta$



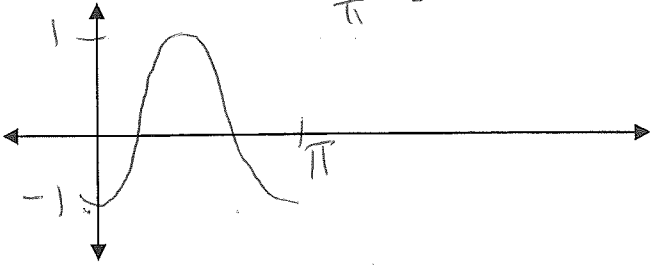
Amp: 2
 Period: π
 Equation: $y = -2\sin 2\theta$

Sketch one cycle of the graph of each periodic function.



11. $y = -\cos 2\theta$

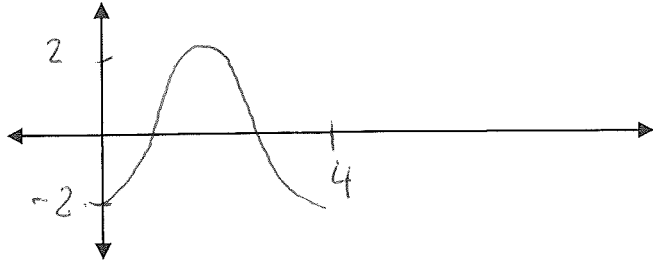
$\frac{2\pi}{\pi} = 2$



12. $y = -2 \cos \frac{\pi}{2} \theta$

$\frac{2\pi}{\pi/2}$

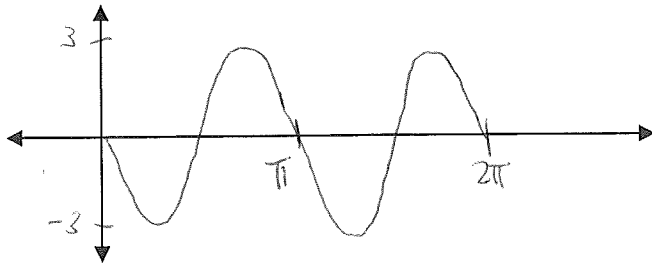
$2\pi \cdot \frac{2}{\pi} = 4$



Sketch the graph of each periodic function from 0 to 2π.

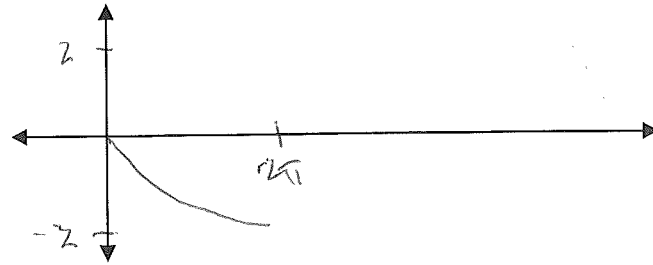
13. $y = -3 \sin 2\theta$

2 cycles
P = π



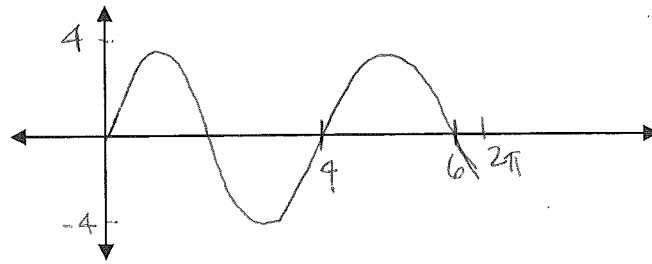
14. $y = -2 \sin \frac{1}{4} \theta$

1/4 cycle
P = 8π



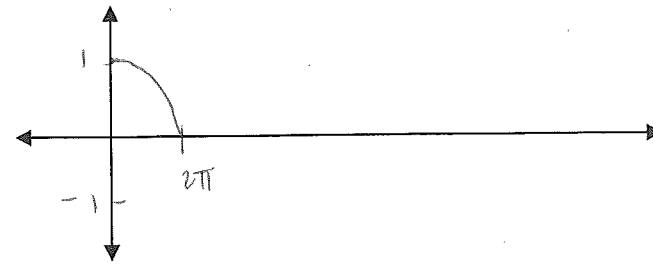
15. $y = 4 \sin \frac{\pi}{2} \theta$

1.7 cycles
P = 4



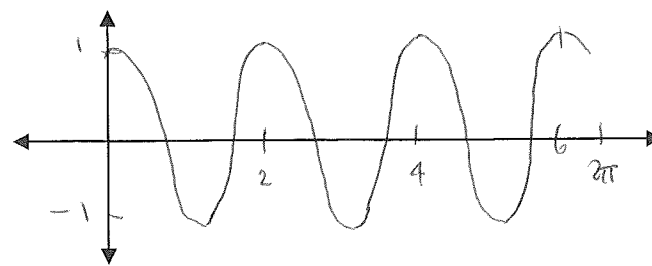
16. $y = \cos \frac{\theta}{4}$

1/4 cycle
P = 8π



17. $y = \cos \pi \theta$

3.14 cycles
P = 2



18. $y = 0.5 \cos 3\theta$

3 cycles
P = 2π/3

