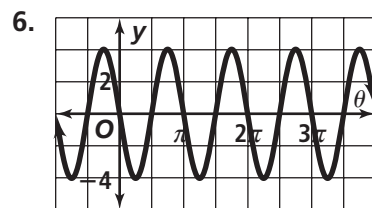
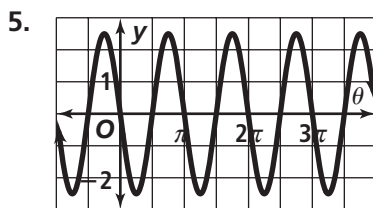
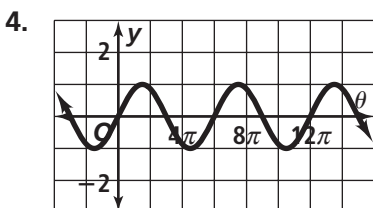
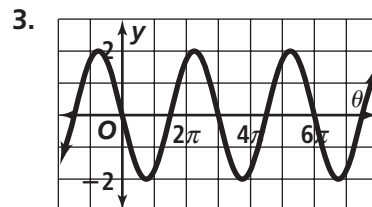
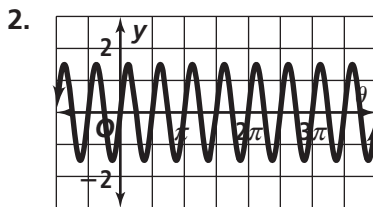
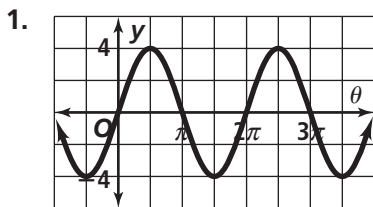


Practice 13-4

The Sine Function

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



Sketch one cycle of each sine curve. Assume $a > 0$. Write an equation for each graph.

7. amplitude = 2; period = π

8. amplitude = 3; period = 2π

9. amplitude = 2; period = $\frac{\pi}{2}$

10. amplitude = 2; period = $\frac{\pi}{4}$

11. amplitude = 1.5; period = $\frac{\pi}{3}$

12. amplitude = 2.5; period = 2π

Sketch one cycle of the graph of each sine function.

13. $y = 2 \sin \theta$

14. $y = -2 \sin 4\theta$

15. $y = \sin 2\theta$

16. $y = 3 \sin \frac{\theta}{2}$

17. $y = -\sin 2\theta$

18. $y = -5 \sin 3\theta$

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

20. $y = 4 \sin 5\theta$

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

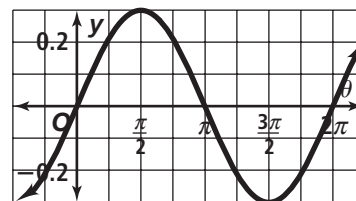
Use the graph at the right to find the value of $y = 0.3 \sin \theta$ for each value of θ .

22. 6 radians

23. $\frac{\pi}{4}$ radians

24. $\frac{3\pi}{4}$ radians

25. $\frac{\pi}{2}$ radian



Use the graph at the right to find the value of $y = 0.3 \sin \theta$ for each value of θ .

26. 160°

27. 135°

28. 270°

29. 225°

