

Page 373: 23, 27, 29, 34, 37, 47, 49, 25

State the amplitude and period for each function. Then graph each function.

23. $y = 5 \cos \theta$ **5; 2π**

27. $y = -3 \sin \frac{\pi}{2} \theta$ **3; 4**

29. $y = 3 \sin 2\theta$ **3; π**

34. $y = -2.5 \cos \frac{\theta}{5}$ **2.5; 10π**

Write an equation of the sine function with each amplitude and period.

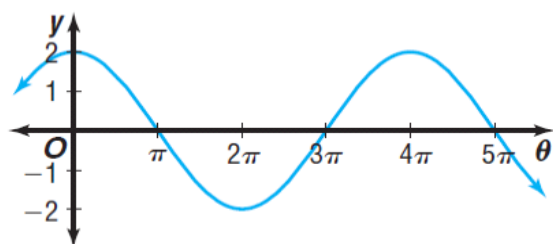
37. amplitude = 35.7, period = $\frac{\pi}{4}$ **$y = \pm 35.7 \sin 8\theta$**

Write an equation of the cosine function with each amplitude and period.

47. amplitude = 17.9, period = 16 **$y = \pm 17.9 \cos \frac{\pi}{8} \theta$**

Write an equation for each graph.

49.



$y = 2 \cos \frac{\theta}{2}$

Determine each angular velocity. Round to the nearest tenth.

25. 1.8 revolutions in 5 seconds **2.3 radians/s**