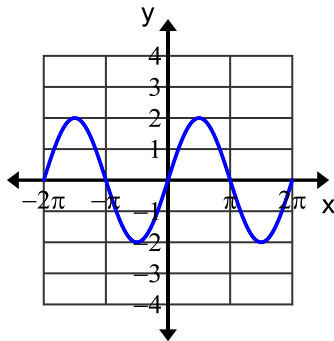


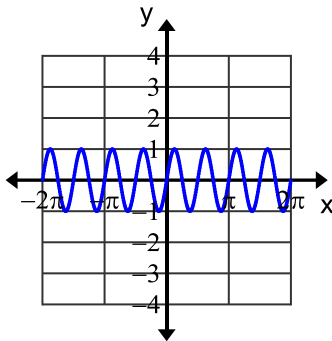
Chapter 10 Practice Test 1

Name _____

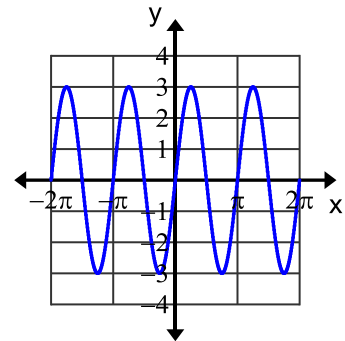
1.



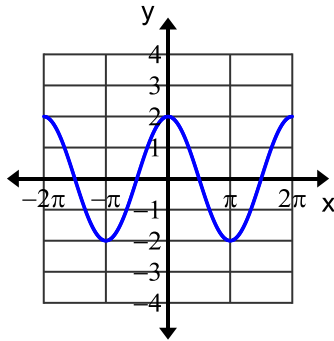
2.



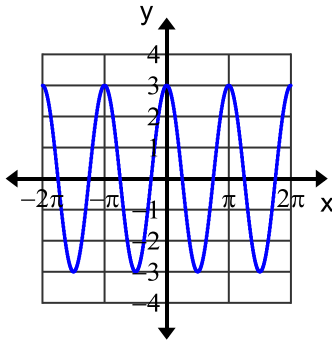
3.



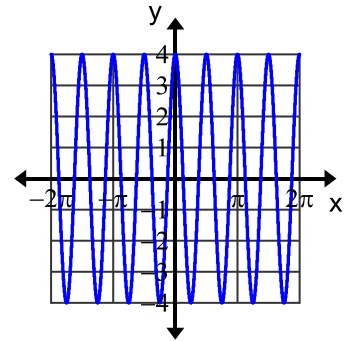
4.



5.



6.



Give the equation of each graph above. There have been no phase shifts.

Graph 1 = _____

Graph 2 = _____

Graph 3 = _____

Graph 4 = _____

Graph 5 = _____

Graph 6 = _____

Take the given equations and state the amplitude, period, and phase shift of each.

7. $y = 5 \sin(3\theta^\circ)$

amplitude: _____

period: _____

phase shift: _____

8. $y = 4 \cos(4\theta^\circ - 180^\circ)$

amplitude: _____

period: _____

phase shift: _____

9. $y = 12 \cos\left(\frac{2}{3}\theta^\circ + 90^\circ\right)$

amplitude: _____

period: _____

phase shift: _____

10. $y = 4 \cos(10\theta^\circ - 270^\circ)$

amplitude: _____

period: _____

phase shift: _____

Write the equation of a sine function with each amplitude, period & phase shift.

11. amplitude = 3

period = 45°

phase shift = 180°

Equation: _____

12. amplitude = $\frac{2}{5}$

period = 720°

phase shift = -40°

Equation: _____

13. amplitude = 2

period = 90°

phase shift = 50°

Equation: _____

14. amplitude = 8

period = 540°

phase shift = -20°

Equation: _____

If α and β are the measures of two first quadrant angles, find the exact value of each function.

_____ 15. If $\sin \alpha = \frac{8}{17}$ and $\tan \beta = \frac{4}{3}$, find $\cos(\alpha + \beta)$

_____ 16. If $\sin \alpha = \frac{4}{5}$ and $\sin \beta = \frac{40}{41}$, find $\sin(\alpha - \beta)$

_____ 17. If $\cos \alpha = \frac{8}{17}$ and $\tan \beta = \frac{3}{4}$, find $\sin(\alpha + \beta)$

_____ 18. If $\sin \alpha = \frac{3}{5}$ and $\tan \beta = \frac{9}{40}$, find $\cos(\alpha + \beta)$

Simplify.

$$19. \quad \frac{\tan x \cdot \csc x}{\sec x}$$

$$20. \quad \tan x \cdot \csc x \cdot \cos x$$

$$21. \quad \frac{\cos^2 \theta}{1 + \sin \theta}$$

$$22. \quad \frac{\cos \theta}{\sin \theta \cdot \cot^2 \theta}$$

$$23. \quad \frac{\tan x \cdot \cos x}{\sin x}$$

$$24. \quad \frac{\tan^2 x}{\sec^2 x}$$

$$25. \quad \sin(90^\circ + \theta)$$

$$26. \quad \cos\left(\frac{\pi}{2} + \theta\right) = -\sin \theta$$