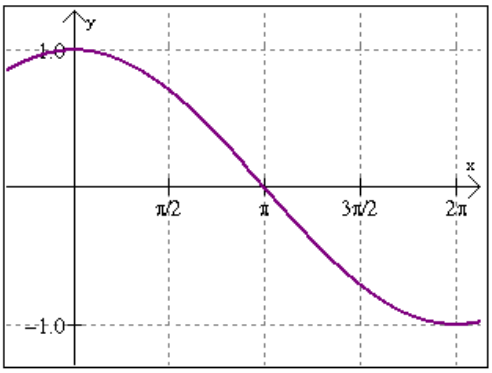
Precalculus

4.5 B graphing cosine

Name_____

Period_____Date_____

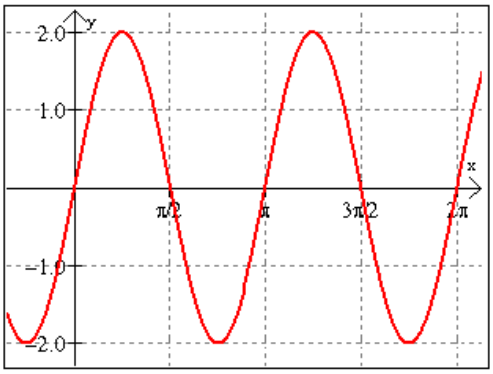
1. Determine an equation for this graph:



Choose:

- $y = \cos(2x)$
- $y = 2\cos(x)$
- $y = \frac{1}{2}\cos(x)$
- $y = \cos\left(\frac{1}{2}x\right)$

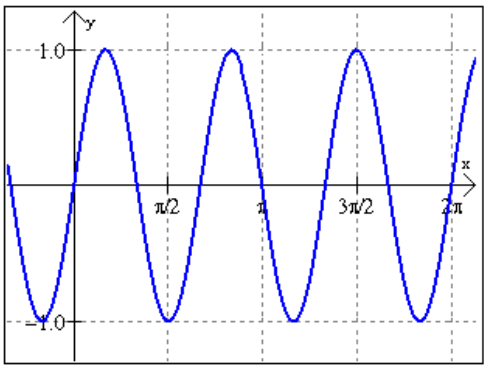
2. Determine an equation for this graph:



Choose:

- $y = 2\sin\left(\frac{1}{2}x\right)$
- $y = 2\sin(2x)$
- $y = 2\cos\left(\frac{1}{2}x\right)$
- $y = 2\cos(2x)$

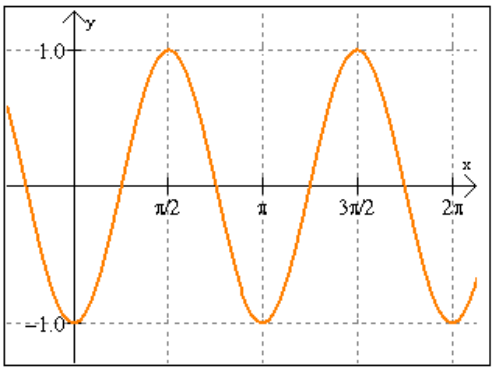
3. Determine an equation for this graph:



Choose:

- $y = 3\sin(x)$
- $y = 3\sin(3x)$
- $y = \sin(3x)$
- $y = \sin\left(\frac{1}{3}x\right)$

4. Determine an equation for this graph:

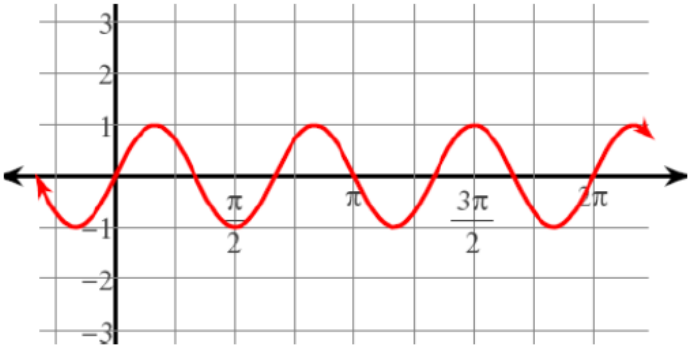


Choose:

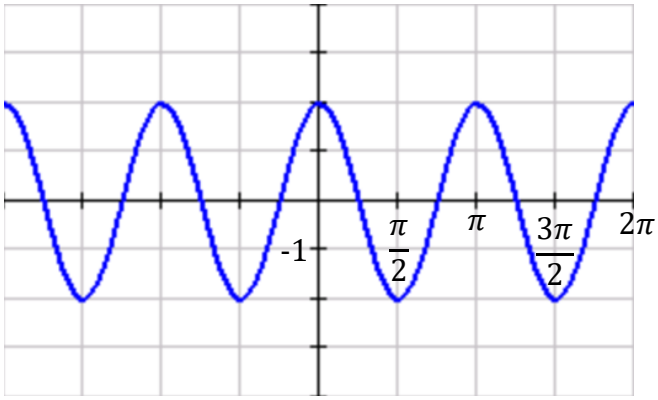
- $y = -\cos(2x)$
- $y = -\cos\left(\frac{1}{2}x\right)$
- $y = -\sin(2x)$
- $y = -2\cos\left(\frac{1}{2}x\right)$

Write the equation for the given graphs. (There is no horizontal phase shift)

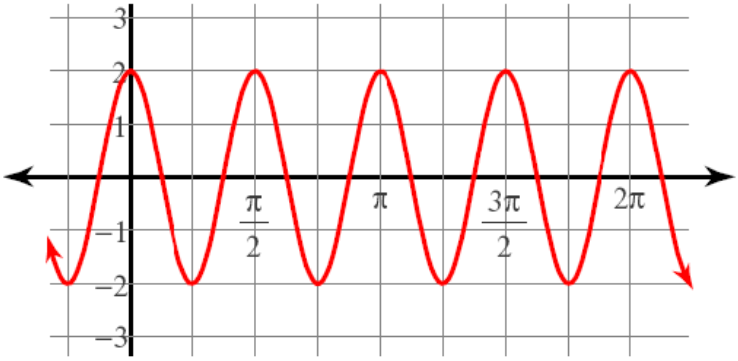
5.



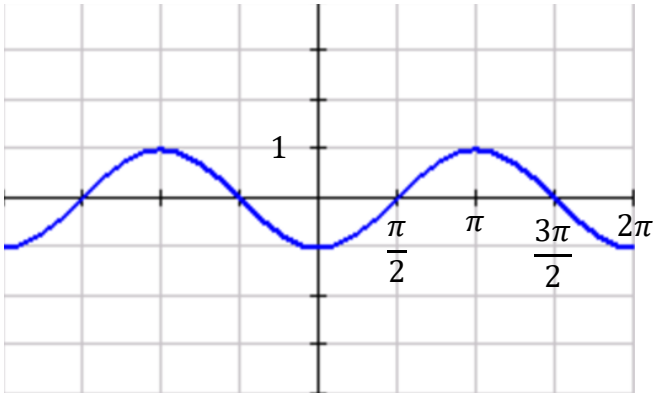
6.



7.

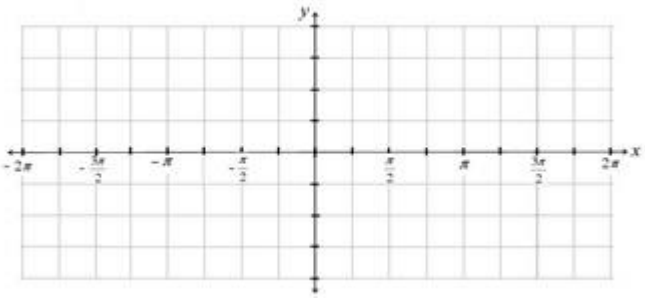


8.

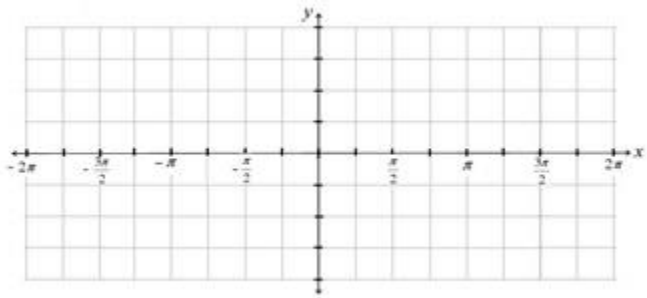


Graph each function using radians.

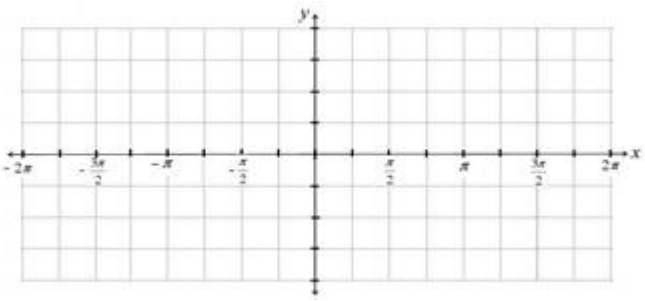
15. $y = 4cos\theta$



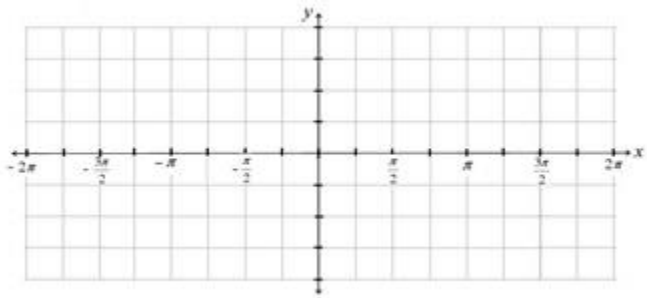
16. $y = -3cos\theta$



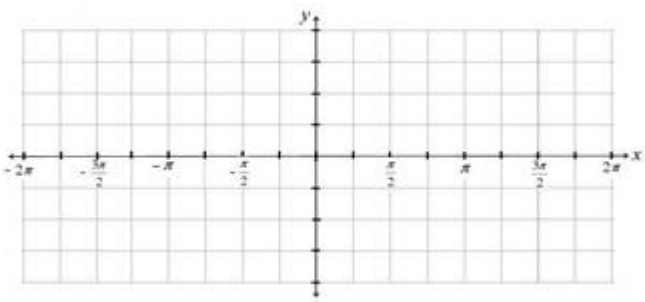
19. $y = 4cos2x$



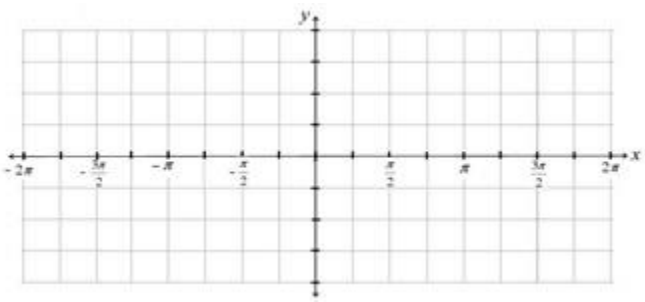
20. $y = -2cos\frac{\theta}{2}$



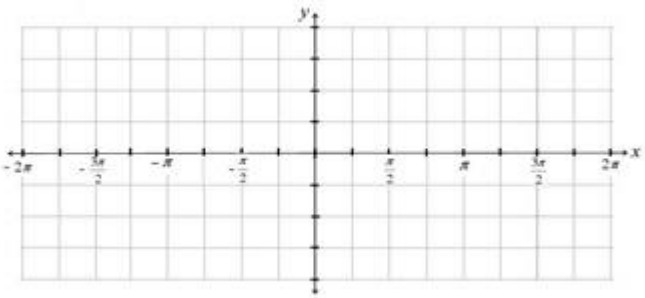
21. $y = cos\left(\theta + \frac{\pi}{2}\right)$



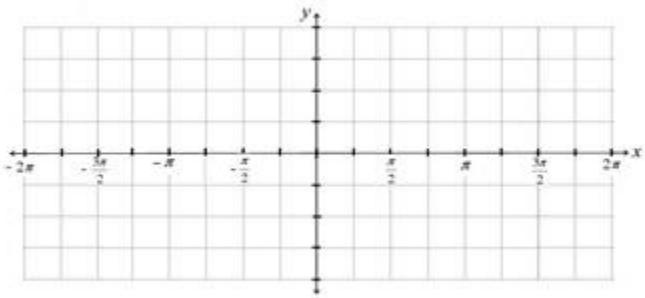
22. $y = -3\cos\left(x - \frac{\pi}{4}\right)$



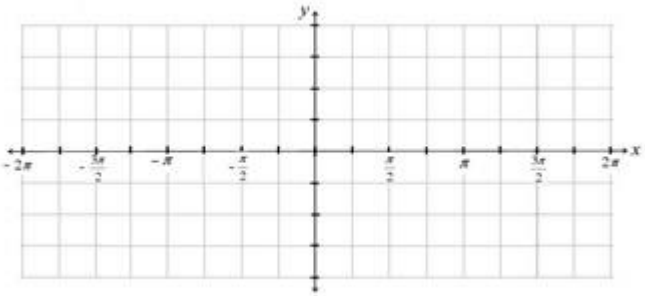
23. $y = 2cosx + 2$



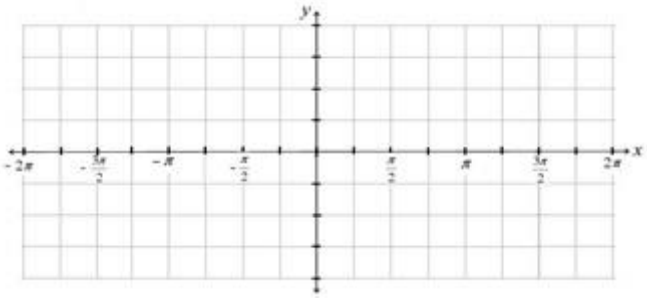
24. $y = 3cos\left(\theta + \frac{\pi}{2}\right) - 1$



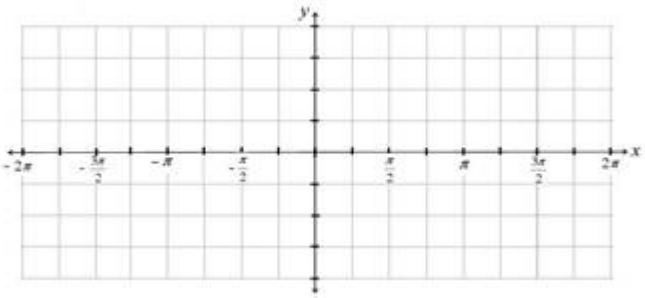
25. $y = -cos\left(\theta + \frac{\pi}{2}\right) + 1$



26. $y = -sin(x + \pi) + 2$



27. $y = 4sin\left(x + \frac{5\pi}{4}\right) - 1$



28. $y = 3\cos\left(x + \frac{3\pi}{4}\right) - 2$