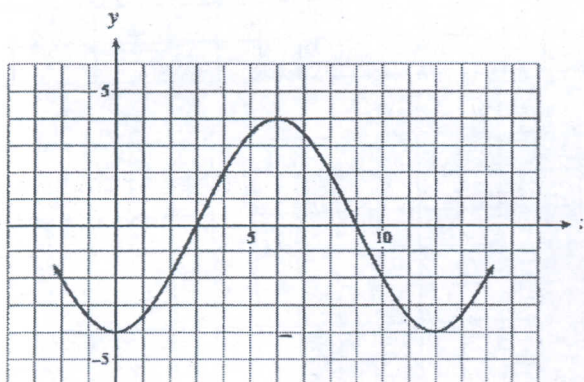


**GRAPHING SINE AND COSINE FUNCTIONS QUIZ**

1. Determine the amplitude of  $y = -2\cos x - 3$

- (a) -3                      (b) -2                      (c) 2                      (d) 3

2. Given the graph below, determine an equation of this function.

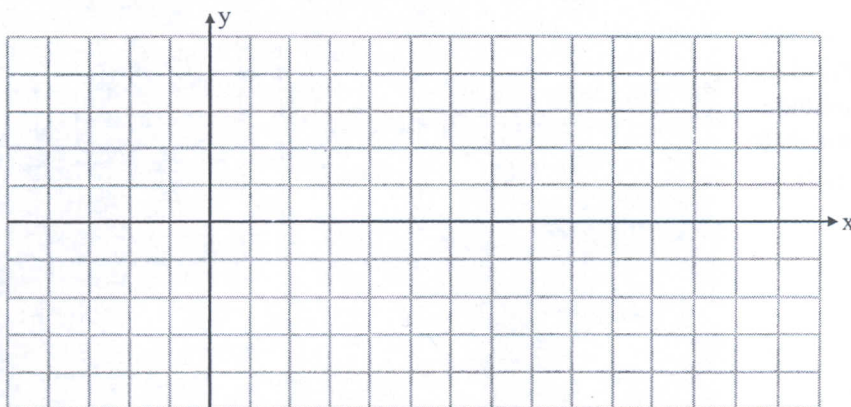


- (a)  $y = -4\cos \frac{\pi}{6}x$   
 (b)  $y = 4\cos \frac{\pi}{6}x$   
 (c)  $y = -4\cos \frac{\pi}{12}x$   
 (d)  $y = 4\cos \frac{\pi}{12}x$

3. List the vertical shift, amplitude, phase shift and period for each function, and sketch the graph, setting the vertical scale and the horizontal scale.

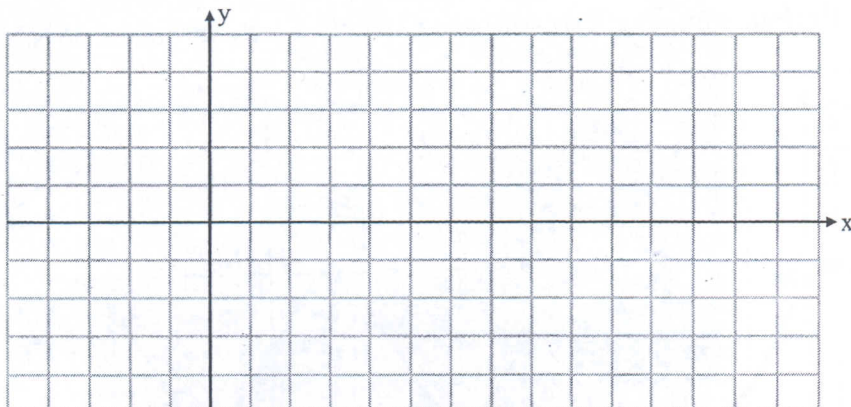
(a)  $y = 3\sin(2\theta)$

- vertical shift: \_\_\_\_\_  
 amplitude: \_\_\_\_\_  
 phase shift: \_\_\_\_\_  
 period: \_\_\_\_\_



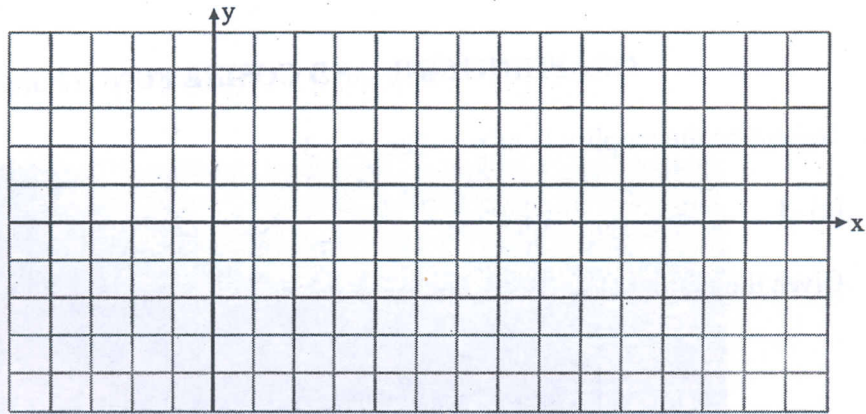
(b)  $y = 2\cos 3(\theta - \frac{\pi}{2}) + 3$

- vertical shift: \_\_\_\_\_  
 amplitude: \_\_\_\_\_  
 phase shift: \_\_\_\_\_  
 period: \_\_\_\_\_



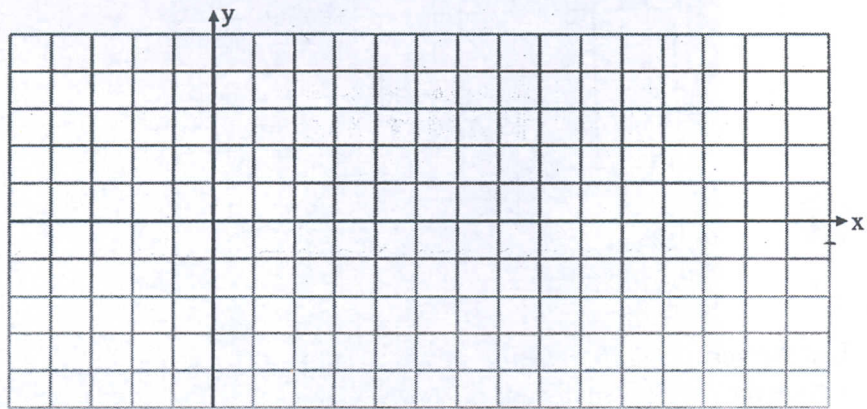
(c)  $y = 2\sin(\theta + \frac{\pi}{3}) - 1$

vertical shift: \_\_\_\_\_  
 amplitude: \_\_\_\_\_  
 phase shift: \_\_\_\_\_  
 period: \_\_\_\_\_



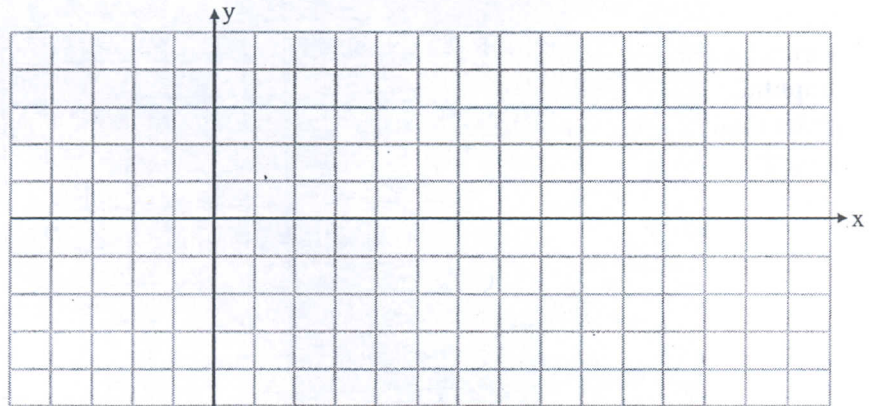
(d)  $y = \sin(3\theta - \frac{\pi}{2})$

vertical shift: \_\_\_\_\_  
 amplitude: \_\_\_\_\_  
 phase shift: \_\_\_\_\_  
 period: \_\_\_\_\_

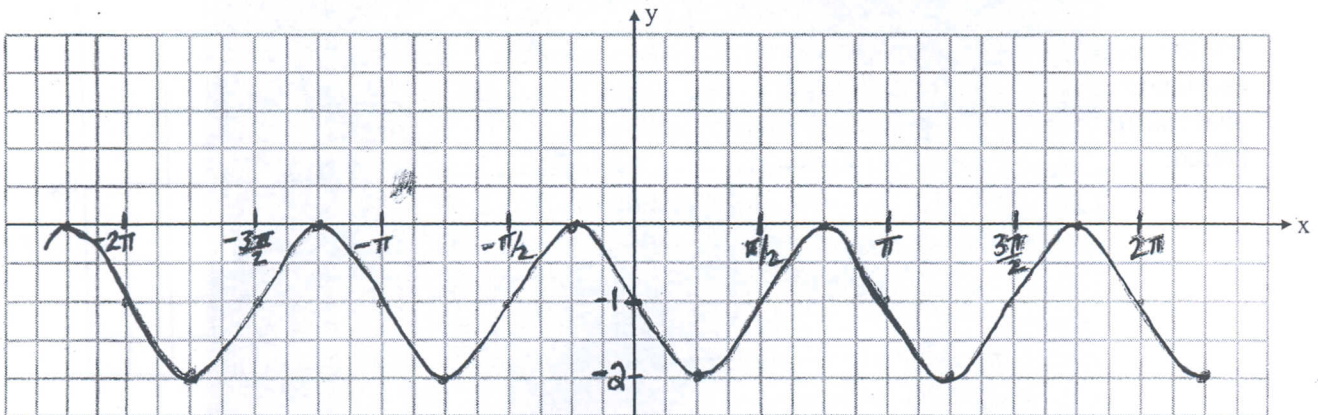


(e)  $y = \cos\pi(t - 1) - 2$

vertical shift: \_\_\_\_\_  
 amplitude: \_\_\_\_\_  
 phase shift: \_\_\_\_\_  
 period: \_\_\_\_\_



4. The following graph represents a COSINE function. State 2 possible COSINE equations.



(a) \_\_\_\_\_

(b) \_\_\_\_\_