

Name: \_\_\_\_\_

Unit 9: True or false?

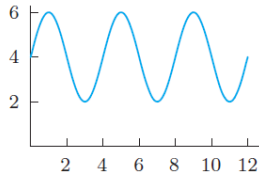


Figure 8.71

13. In Figure 8.71, the amplitude of the function is 6.
14. In Figure 8.71, the period of the function is 4.
15. In Figure 8.71, the midline has equation  $y = 4$ .
16. In Figure 8.71, the function  $g(x) = f(2x)$  has the same period as  $f$ .
17. The amplitude of  $y = -3 \sin(2x) + 4$  is  $-3$ .
18. The amplitude of  $y = 25 + 10 \cos x$  is 25.
19. The period of  $y = 25 + 10 \cos x$  is  $2\pi$ .
20. The maximum  $y$ -value of  $y = 25 + 10 \cos x$  is 10.
21. The minimum  $y$ -value of  $y = 25 + 10 \cos x$  is 15.
22. The midline equation for  $y = 25 + 10 \cos x$  is  $y = 35$ .
23. The function  $\cos x$  is a sinusoidal function.
24. The function  $\sin x$  has period  $2\pi$ .
25. The function  $\sin(\pi x)$  has period  $\pi$ .
26. The function  $y = -2 \sin x + k$  has amplitude  $-2$ .
27. The graph of the function  $y = 3 \cos x - 4$  is the graph of the function  $y = \cos x$  reflected across the  $x$ -axis.
28. The function  $f(t) = \sin(2t)$  has period  $\pi$ .
29. The function  $f(x) = \cos(3x)$  has a period three times as large as the function  $g(x) = \cos x$ .
30. Changing the value of  $B$  in the function  $y = A \sin(Bx) + k$  changes the period of the function.
31. The graph of  $y = A \sin(2x + h) + k$  is the graph of  $y = A \sin(2x) + k$  shifted to the left by  $h$  units.
32. A sinusoidal function that has a midline of  $y = 5$ , an amplitude of 3, and completes 4 cycles in the interval  $0 \leq x \leq 2\pi$  could have the equation  $y = -3 \cos(4x) + 5$ .
33. The function graphed in Figure 8.72 could have the equation  $y = \frac{1}{2} \sin(2x) + 1$ .

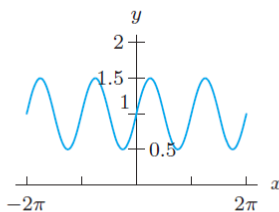


Figure 8.72

34. The function graphed in Figure 8.72 could have the equation  $y = -0.5 \cos(2x + \frac{\pi}{3}) + 1$ .

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Unit 9: True or false?

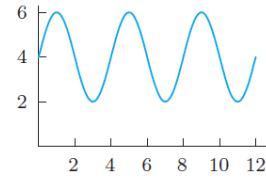


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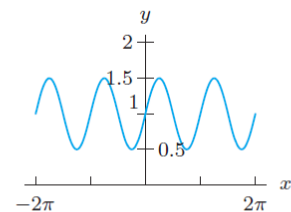


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