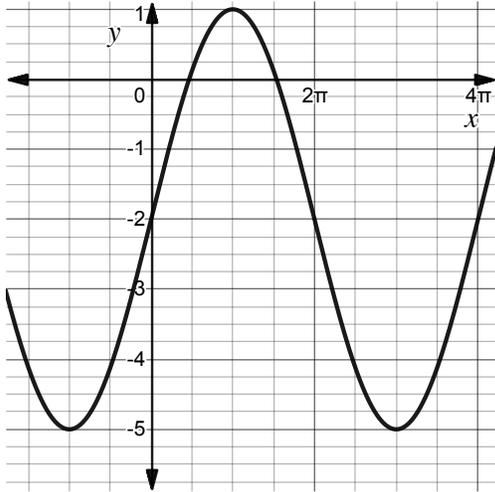


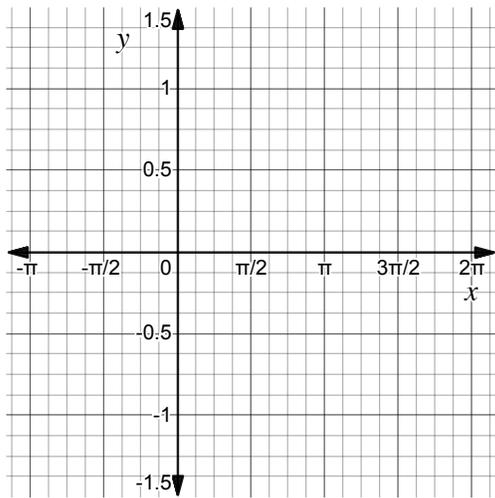
APPC Lesson 6.6 Homework

Name _____

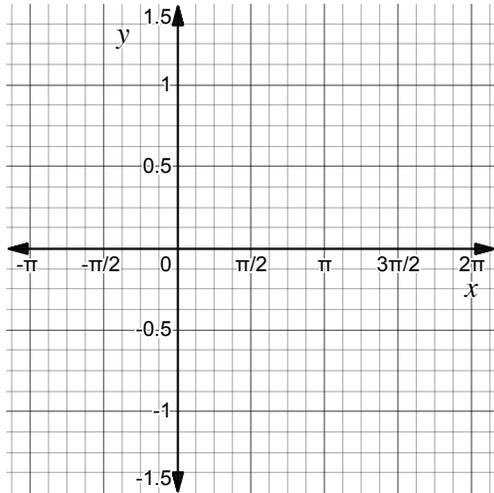
1. Identify the midline, amplitude, domain, and range of the sinusoidal function shown in the graph.



2. Graph $y = \frac{1}{2} \cos(x + \pi)$.



3. Graph $y = \sin(2x)$.



4. Describe the transformations of the parent function $f(x) = \sin x$, that produce the graph of $f(x) = -3 \sin(x + \frac{\pi}{4})$.

5. Consider the graph of $y = f(x)$ where $f(x) = 2 + 5 \cos x$.

a. Identify the midline of the graph of f .

b. Identify the period of f .

c. Identify the range of f .

d. Identify the amplitude of f .

 6. The graph of $y = \cos x$ is reflected across the y -axis and horizontally stretched by a factor of $\frac{1}{3}$. Which of the following is affected?

A) Range

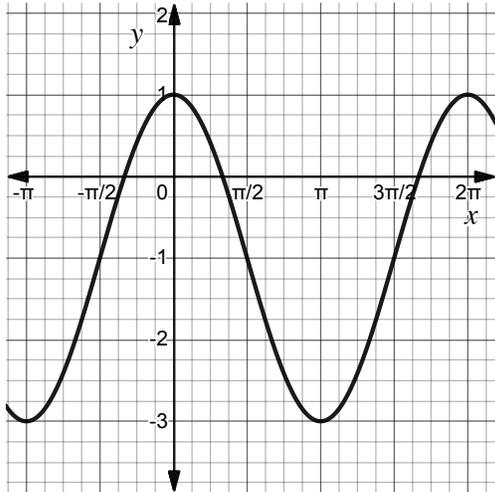
B) Amplitude

C) Period

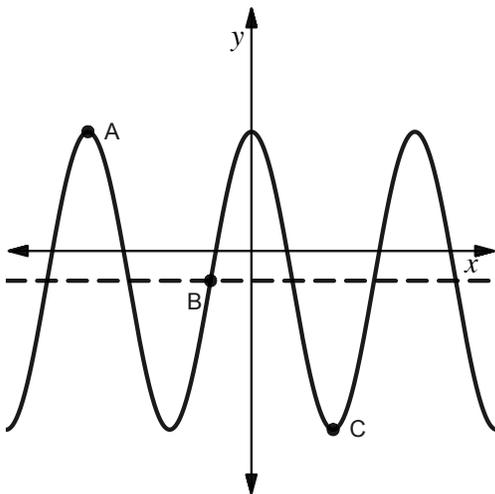
D) Domain

 7. The period of the graph of $y = 7 \sin(Bx) - 3$ is $\frac{\pi}{2}$. Find the value of B .

8. The graph of $y = A \cos(x - C) + D$ is shown for some constants A , C , and D . Find the values of A , C , and D .



9. The sinusoidal function $y = f(x)$ shown below has a midline at $y = -2$, a period of 4π , and an amplitude of 5. Give the coordinates of points A , B , and C .



10. Write two equations for the graph shown, one using sine and one using cosine.

