

9.REV.1 – End of Unit Review

Name: _____

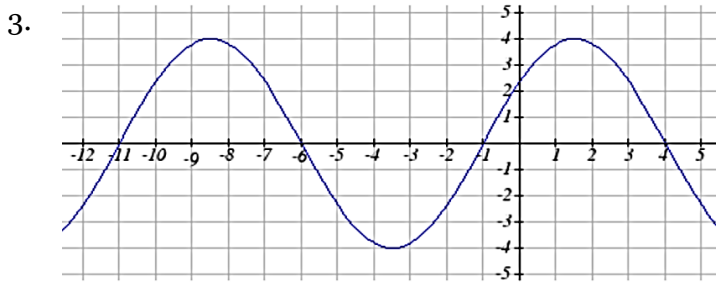
Past due on: _____ Period: _____

Analyze the sinusoidal function.

1. $y = -20 \cos\left(2x - \frac{\pi}{5}\right) + 42$ Amplitude:
 Period:
 Midline:
 Horizontal shift:

2. $y = 8 \sin\left(\frac{\pi}{2}x + 3\pi\right) + 10$ Amplitude:
 Period:
 Midline:
 Horizontal shift:

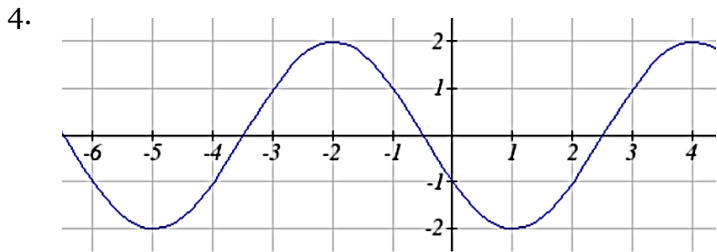
State the period, amplitude, and midline of the sinusoidal function. Then write a function equation.



Select a starting point. Is the function SINE or COSINE? Has it been flipped? Describe any horizontal shifts.

Identify: Amplitude Period Midline

Write your function:

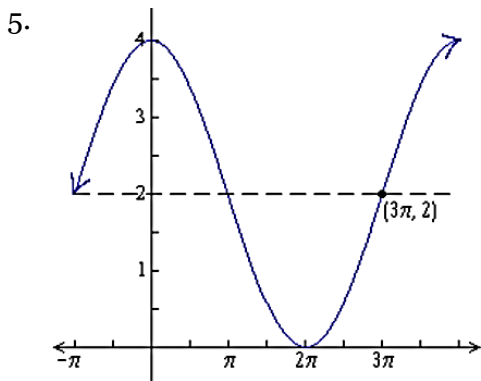


Select a starting point. Is the function SINE or COSINE? Has it been flipped? Describe any horizontal shifts.

Identify: Amplitude Period Midline

Write your function:

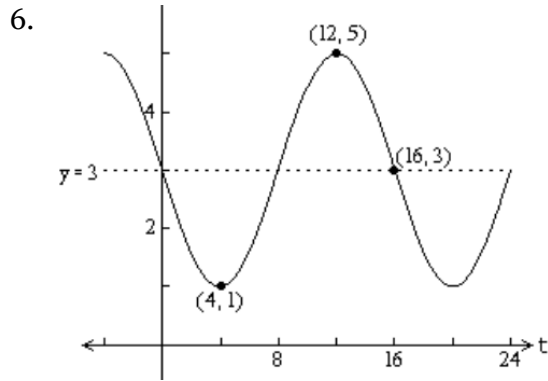
State the period, amplitude, and midline of the sinusoidal function. Then find TWO formulas – one in terms of sine and another in terms of cosine – for the sinusoidal function whose graph is shown.



Identify: Amplitude Period Midline

SINE

COSINE



Identify: Amplitude Period Midline

SINE

COSINE

7. The maximum point on a trigonometric function graph is $(-4, 6)$ and the minimum point is located at $(2, -2)$. Write a COSINE function.

Start with a sketch to determine a starting point. Has cosine been flipped?
Describe any horizontal shifts.

Identify: Amplitude Period Midline

Write your function:

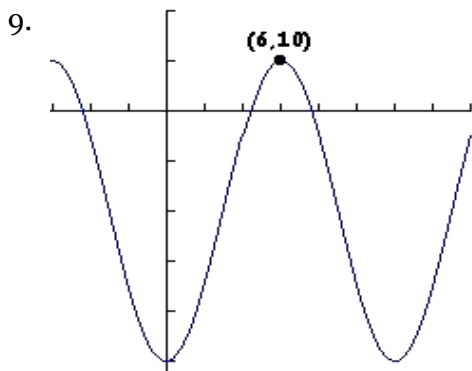
8. A Ferris wheel has a diameter of 94 feet, and the highest point of the wheel is 102 feet above the ground. The Ferris wheel makes one complete rotation every 80 seconds. A passenger will board the Ferris wheel at its lowest point. Write a sinusoidal function that models the rider's height, h , after t seconds.

Start with a sketch to determine a starting point. Is the function SINE or COSINE?
Has it been flipped? Describe any horizontal shifts.

Identify: Amplitude Period Midline

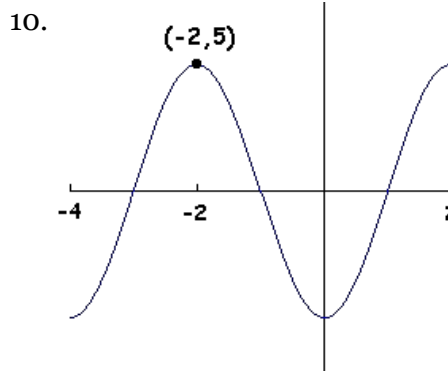
Write your function:

State the period, amplitude, and midline of the sinusoidal function. Then write a function equation.



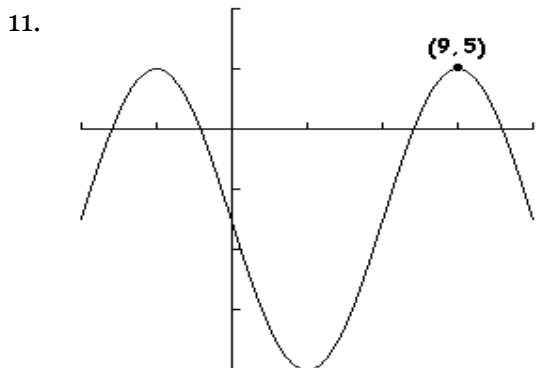
Identify: Amplitude Period Midline

Write your function:



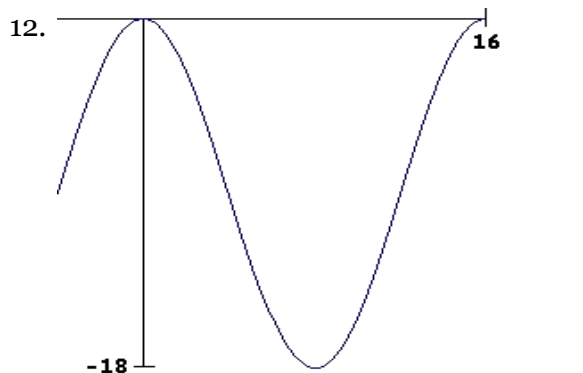
Identify: Amplitude Period Midline

Write your function:



Identify: Amplitude Period Midline

Write your function:



Identify: Amplitude Period Midline

Write your function: