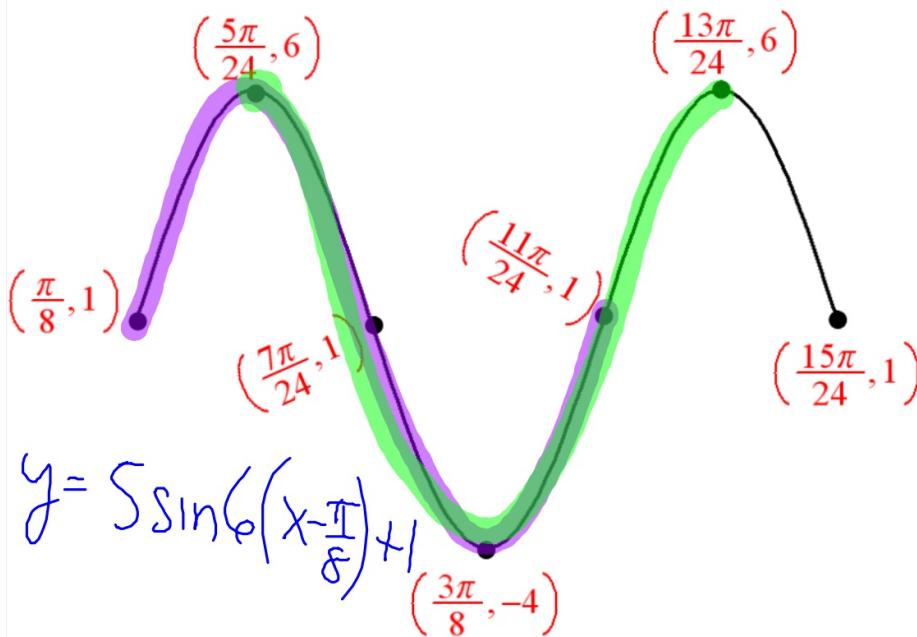


1. Write the equation of this function.



$$y = 5 \sin(6(x - \frac{\pi}{8})) + 1$$

period $\frac{\pi}{3}$

Amp = 5

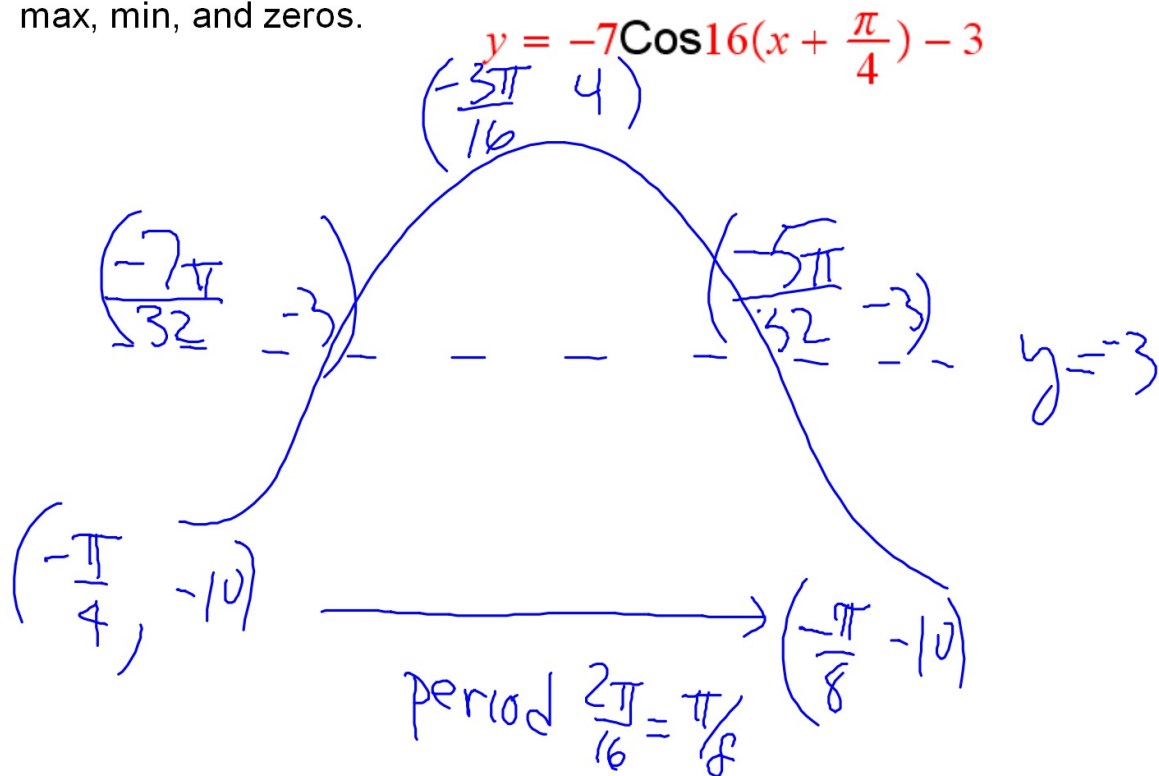
midline $y = 1$

phase shift

$$b = 2\pi \cdot \frac{3}{\pi}$$

$$b = 6$$

2. Graph one period of this function. Label the coordinates of all max, min, and zeros.



$$y = -7 \cos(16(x + \frac{\pi}{4})) - 3$$

$$y = -3$$

$$\text{period } \frac{2\pi}{16} = \frac{\pi}{8}$$