Exercise 169

For the following exercises, find a. the amplitude, b. the period, and c. the phase shift with direction for each function.

$$y = \frac{-1}{2}\sin\left(\frac{1}{4}x\right)$$

Solution

The amplitude is 1/2, the (positive) coefficient of the sine function.

The period is 2π divided by 1/4, the coefficient of x, which is 8π.

$$y = -\frac{1}{2}\sin\left[\frac{1}{4}(x-0)\right]$$

The phase shift is 0.