Exercise 171

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

$$y = -3\sin(\pi x + 2)$$

Solution

The amplitude is 3, the (positive) coefficient of the sine function.

The period is 2π divided by π, the coefficient of x, which is 2.

$$y = -3\sin\left[\pi\left(x + \frac{2}{\pi}\right)\right]$$

The phase shift is $2/\pi$ units to the left.