

Exercise 172

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

$$y = 4 \cos \left(2x - \frac{\pi}{2} \right)$$

Solution

The amplitude is 4, the (positive) coefficient of the cosine function.

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

$$y = 4 \cos \left[2 \left(x - \frac{\pi}{4} \right) \right]$$

The phase shift is $\pi/4$ units to the right.