

Exercise 168

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

$$y = 3 \cos(2x + 3)$$

Solution

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

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

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

The phase shift is $3/2$ units to the left.