

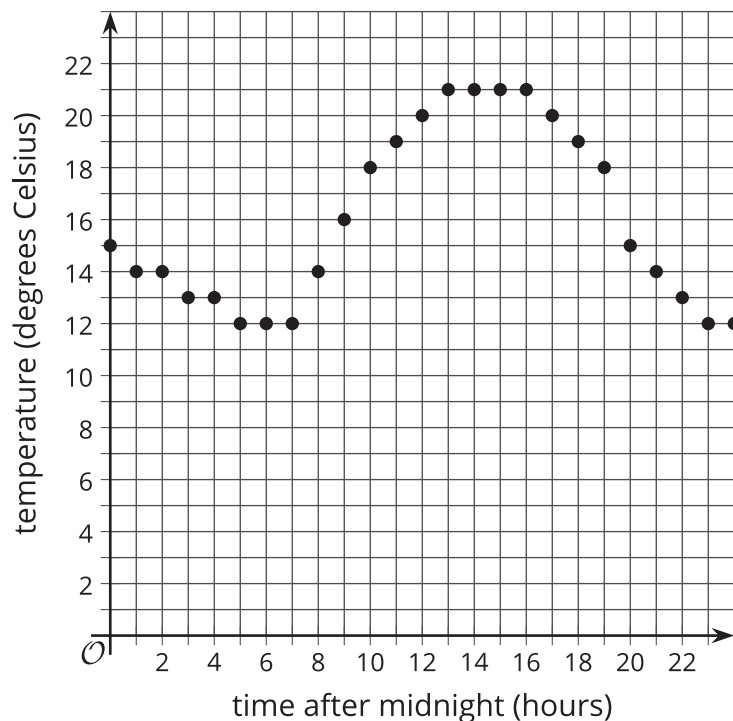


# Understanding Points in Situations

Let's understand points on a function in a situation.

## 2.1 A Day of Temperature

The temperature for a city is a function of time after midnight. The graph shows the values on a particular spring day.



1. What does the point on the graph where  $x = 15$  mean?
2. What is the temperature at 5 p.m.?
3. What is the hottest it gets on this day?
4. What is the coldest it gets on this day?

## 2.2

## What Happens to -2?

For each of these equations, find the value of  $y$  when  $x = -2$ .

1.  $y = 3x - 4$

2.  $y = 10 - 2x$

3.  $y = \frac{3}{2}x + 5$

4.  $y = 2(x - 1) + 4$

5.  $y = -x + 19$

6.  $y = \frac{x-3}{8}$

7.  $y = 0.3x + 5$



## 2.3

## It's Heating Up!

A sample for a science experiment is being warmed steadily in a machine. The temperature of the sample (in degrees Fahrenheit) is a function of time (in seconds) after it was put in the machine. This can be represented by the equation  $y = 2.1x + 86$ .

1. What does it mean when  $x = 2$ ?
2. What is the temperature in that situation?
3. What does it mean when  $y = 122$ ?
4. A graph of this equation goes through the point  $(60, 212)$ . What does that mean?
5. Give 2 values for  $x$  for which the model is not expected to apply. Explain your reasoning.
6. Give 2 values for  $y$  for which the model is not expected to apply. Explain your reasoning.