## Lesson 2: Understanding Points in Situations

### 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!

The temperature, in degrees Fahrenheit, of a scientific sample being warmed steadily as a function of time in seconds after the sample is put in a machine 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 $x$ that do not make sense. Explain your reasoning.
6. Give 2 values for $y$ that do not make sense. Explain your reasoning.



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