## Lesson 13: Interpreting Points on a Coordinate Plane

## Cool Down: Time and Temperature

The temperature in Princeton was recorded at various times during the day. The times and temperatures are shown in the table.

| time (hours before or after midnight) | temperature (degrees C) |  |  |  |  |  |  | 8 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 6 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -5 | 1.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | -10 | -8 | -6 |  | -4 | -2 | $\theta$ |  | 2 |  | 4 |  | 6 |  | 8 | 10 |  |
| -2 | -1.6 |  |  |  |  |  |  | -2 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | -2 |  |  |  |  |  |  |  |  |  |  |
| 0 | -3.5 |  |  |  |  |  |  | -4 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  | - |  |  |  |  |  |  |  |  |  |  |
|  | -6.7 |  |  |  |  |  |  | -6 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | -8 |  |  |  |  |  |  |  |  |  |  |

1. Plot points that represent the data. Be sure to label the axes.
2. In the town of New Haven, the temperature at midnight was $1.2^{\circ} \mathrm{C}$. Plot and label this point. Which town was warmer at midnight, Princeton or New Haven? How many degrees warmer was it?
3. If the point $(3,-2.5)$ were also plotted on the diagram, what would it mean?
