

Name \_\_\_\_\_

## Graph Data

**I Can** use a coordinate plane to display data collected in an experiment.

### Florida's B.E.S.T.

- **Geometric Reasoning** 5.GR.4.1, 5.GR.4.2
- **Data Analysis & Probability** 5.DP.1.1
- **Mathematical Thinking & Reasoning** MTR.1.1, MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1



### UNLOCK the Problem

**Materials** ■ paper cup ■ water ■ Fahrenheit thermometer  
■ ice cubes ■ stopwatch

When data is collected, it can be organized in a table.

- A.** Fill the paper cup more than halfway with room-temperature water.
- B.** Place the Fahrenheit thermometer in the water and find its beginning temperature before adding any ice. Record this temperature in the table at 0 seconds.
- C.** Place three cubes of ice in the water and start the stopwatch. Find the temperature every 10 seconds for 60 seconds. Record the temperatures in the table.

Water Temperature	
Time (in seconds)	Temperature (in °F)
0	
10	
20	
30	
40	
50	
60	



## Try Another Problem

1. Explain why you would record the beginning temperature at 0 seconds.

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2. Describe what happens to the temperature of the water in 60 seconds, during the experiment.

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3. **MTR** Analyze your observations of the temperature of the water during the 60 seconds, and explain what you think would happen to the temperature if the experiment continued for 60 seconds longer.

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can use a coordinate plane to graph and analyze

You can use a coordinate plane to graph and analyze the data you collected in the experiment.

**STEP 1** Write the related pairs of data as ordered pairs.

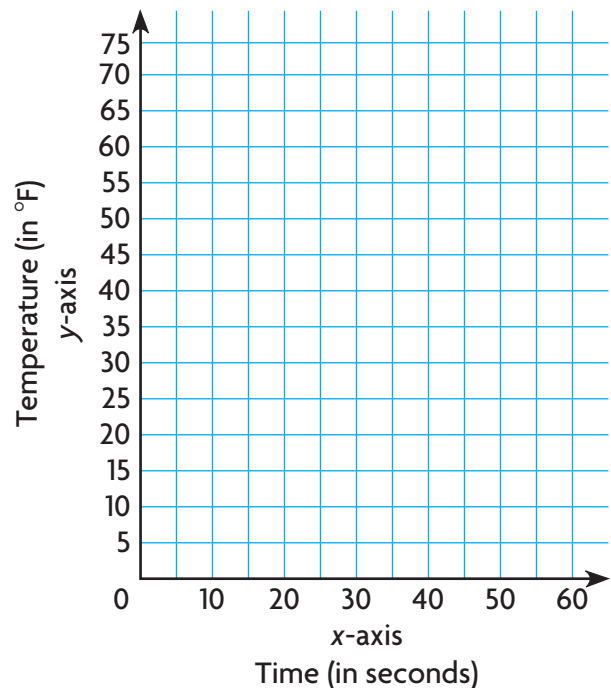
$(0, \underline{\hspace{1cm}})$      $(20, \underline{\hspace{1cm}})$      $(40, \underline{\hspace{1cm}})$

(10,         )    (30,         )    (50,         )

(60,           )

**STEP 2** Construct a coordinate plane and write a title for it.

**STEP 3** Plot a point for each ordered pair.



**Math  
Talk**

**MTR**  
**1.1**

**Actively participate in effortful learning.**

What is the ordered pair that you recorded for the data at 10 seconds? Explain what each coordinate represents.