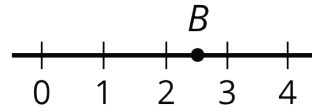# Unit 7 Lesson 2: Points on the Number Line

1 A Point on the Number Line (Warm up)

Student Task Statement

Which of the following numbers could be B?

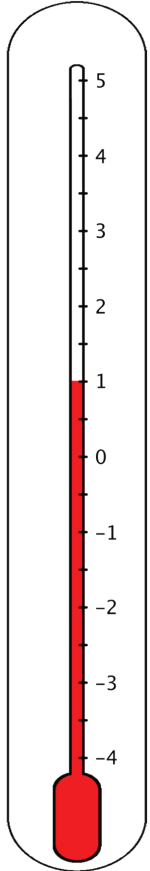2.5 $\qquad$ $\frac{2}{5}$ $\qquad$ $\frac{5}{2}$ $\qquad$ $\frac{25}{10}$ $\qquad$ 2.49
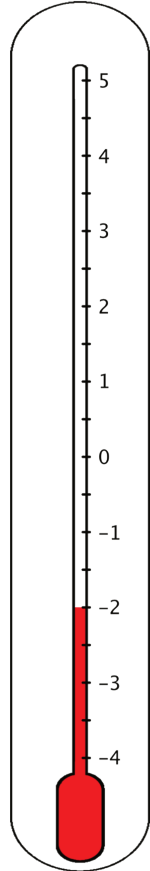
2 What's the Temperature?

Student Task Statement

1. Here are five thermometers. The first four thermometers show temperatures in Celsius. Write the temperatures in the blanks.
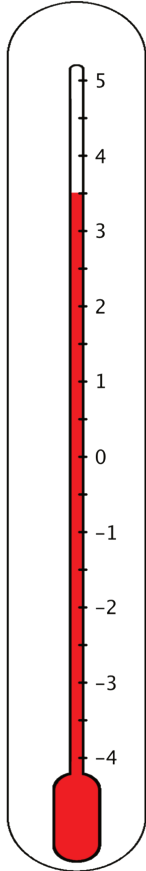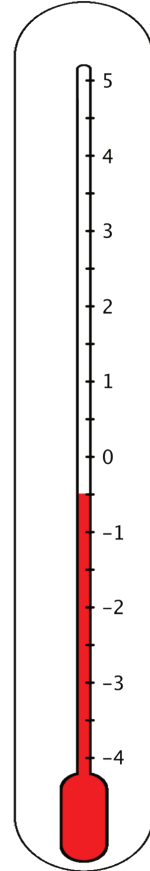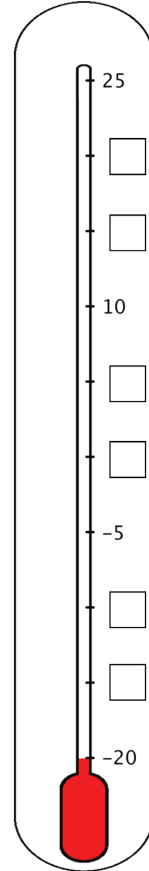
a. _____   b. _____   c. _____   d. _____   e.

The last thermometer is missing some numbers. Write them in the boxes.

2. Elena says that the thermometer shown here reads -2.5°C
because the line of the liquid is above -2°C. Jada says that it is
-1.5°C. Do you agree with either one of them? Explain your
reasoning.
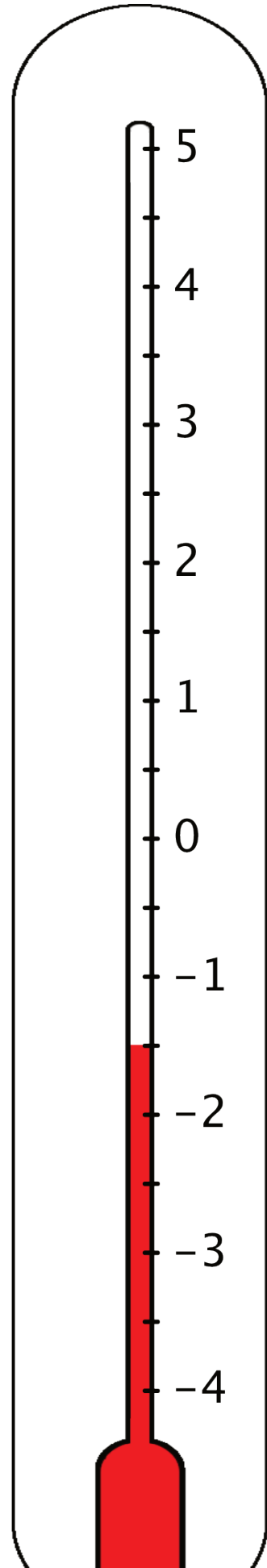
3. One morning, the temperature in Phoenix, Arizona, was $8°\text{C}$ and the temperature in Portland, Maine, was $12°\text{C}$ cooler. What was the temperature in Portland?
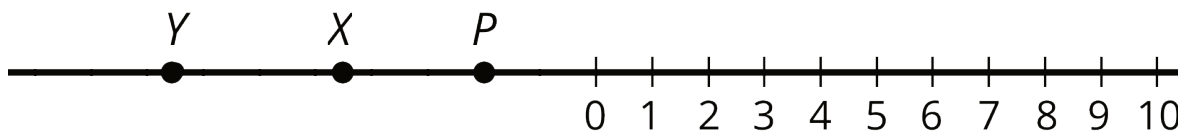
3 Folded Number Lines

Student Task Statement

Your teacher will give you a sheet of tracing paper on which to draw a number line.

1. Follow the steps to make your own number line.

   - Use a straightedge or a ruler to draw a horizontal line. Mark the middle point of the line and label it 0.

   - To the right of 0, draw tick marks that are 1 centimeter apart. Label the tick marks 1, 2, 3. . . 10. This represents the positive side of your number line.

   - Fold your paper so that a vertical crease goes through 0 and the two sides of the number line match up perfectly.

   - Use the fold to help you trace the tick marks that you already drew onto the opposite side of the number line. Unfold and label the tick marks -1, -2, -3. . . -10. This represents the negative side of your number line.

2. Use your number line to answer these questions:

   a. Which number is the same distance away from zero as is the number 4?

   b. Which number is the same distance away from zero as is the number -7?

   c. Two numbers that are the same distance from zero on the number line are called **opposites**. Find another pair of opposites on the number line.

   d. Determine how far away the number 5 is from 0. Then, choose a positive number and a negative number that is each farther away from zero than is the number 5.

   e. Determine how far away the number -2 is from 0. Then, choose a positive number and a negative number that is each farther away from zero than is the number -2.

   Pause here so your teacher can review your work.

3. Here is a number line with some points labeled with letters. Determine the location of points P, X, and Y.

If you get stuck, trace the number line and points onto a sheet of tracing paper, fold it so that a vertical crease goes through 0, and use the folded number line to help you find the unknown values.