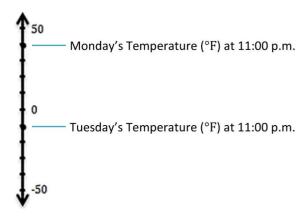
Comparing Integers and Other Rational Numbers

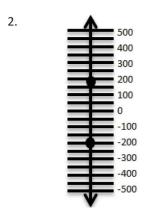
1. Interpret the number line diagram shown below, and write a statement about the temperature for Tuesday compared to Monday at 11:00 p.m.

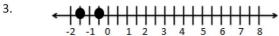


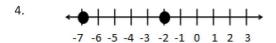
2. If the temperature at 11:00 p.m. on Wednesday is warmer than Tuesday's temperature, but still below zero, what is a possible value for the temperature at 11:00 p.m. Wednesday?

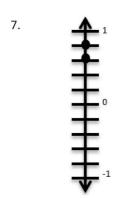
Write a story related to the points shown in each graph. Be sure to include a statement relating the numbers graphed on the number line to their order.



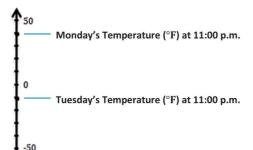








 Interpret the number line diagram shown below, and write a statement about the temperature for Tuesday compared to Monday at 11:00 p.m.



At 11:00 p.m. on Monday, the temperature was about 40 degrees Fahrenheit, but at 11:00 p.m. on Tuesday, it was -10 degrees Fahrenheit. Tuesday's temperature of -10 degrees is below zero, but 40 degrees is above zero. It was much warmer on Monday at 11:00 p.m. than on Tuesday at that time.

2. If the temperature at 11:00 p.m. on Wednesday is warmer than Tuesday's temperature, but still below zero, what is a possible value for the temperature at 11:00 p.m. Wednesday?

Answers will vary but must be between 0 and -10. A possible temperature for Wednesday at 11:00 p.m. is -3 degrees Fahrenheit because -3 is less than zero and greater than -10.

Write a story related to the points shown in each graph. Be sure to include a statement relating the numbers graphed on the number line to their order.

1. -2 -1 0 1 2 3 4 5 6 7 8

Answers will vary. Marcy earned no bonus points on her first math quiz. She earned 4 bonus points on her second math quiz. Zero represents earning no bonus points, and 4 represents earning 4 bonus points. Zero is graphed to the left of 4 on the number line. Zero is less than 4.

2. 500 400 300 200 100 -100 -200 -300 -400 -500

Answers will vary. My uncle's investment lost \$200 in May. In June, the investment gained \$150. The situation is represented by the points -200 and 150 on the vertical number line. Negative 200 is below zero and 150 is above zero. -200 is less than 150.

Answers will vary. I gave my sister \$1.50 last week. This week I gave her \$0.50. The points -1.5 and -0.5 represent the change to my money supply. We know that -1.50 is to the left of -0.50 on the number line; therefore, -0.50 is greater than -1.50.

Answers will vary. A fish is swimming 7 feet below the water's surface. A turtle is swimming 2 feet below the water's surface. We know that -7 is to the left of -2 on the number line. This means -7 is less than -2.

5. **← | ♦ | | | | | | ● | | | →**

Answers will vary. I spent \$8 on a CD last month. I earned \$5 in allowance last month. -8 and 5 represent the changes to my money last month. -8 is to the left of 5 on a number line. -8 is 3 units farther away from zero than 5, which means that I spent \$3 more on the CD than I made in allowance.

Answers will vary. Skip, Mark, and Angelo were standing in line in gym class. Skip was the third person behind Mark. Angelo was the first person ahead of Mark. If Mark represents zero on the number line, then Skip is associated with the point at -3 and Angelo is associated with the point at 1. 1 is 1 unit to the right of zero and -3 is 3 units to the left of zero. -3 is less than 1.

