

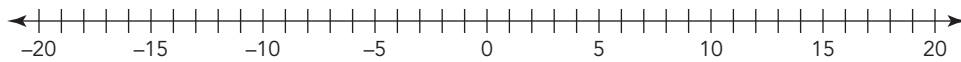
Topic 1

Signed Numbers

Name _____ Date _____

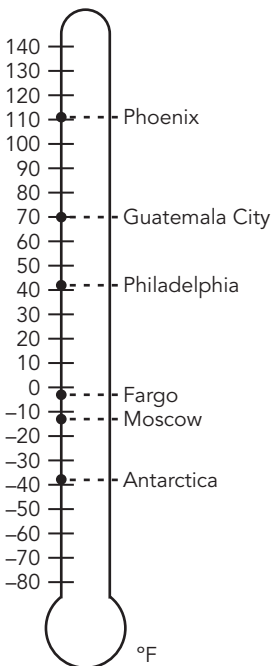
I. Representing Opposites on a Number Line

A. Plot each number and its opposite on the number line.



1. 4
2. -17
3. $-(-5)$
4. 11
5. $-(-20)$
6. -8

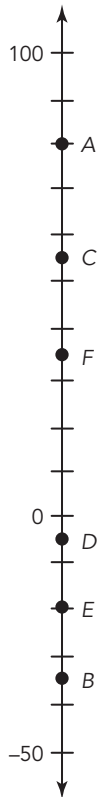
B. A thermometer is like a vertical number line. This thermometer shows the temperatures for 6 locations around the world in degrees Fahrenheit. Use the thermometer to estimate the temperature in each location.



1. Antarctica
2. Philadelphia
3. Phoenix
4. Moscow
5. Guatemala City
6. Fargo

Name _____ Date _____

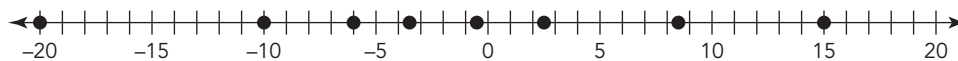
C. The vertical number line has an interval of 10. Use the number line to answer each question.



1. What number represents the location of point A?
2. What number represents the location of point C?
3. Which point is located halfway between 0 and -10 ?
4. Which point is the opposite of point B?
5. Which number represents the location of point E?
6. Which point is between -30 and -40 ?

II. Representing Integers on Number Lines

A. Use the number line to answer each question.



1. Which point represents a value that is less than -1 and greater than -5 ?
2. Which point represents a value that is greater than -9 and less than -5 ?

3. Which point represents a value that is less than 9 and greater than 5?

4. Which point represents a value that is greater than 14 and less than 18?

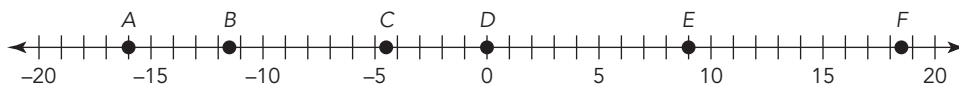
5. Which point represents a value that is equal to or less than -20 ?

6. Which point represents a value that is less than 2 and greater than -3 ?

7. Which point represents a value that is greater than -11 and less than -6 ?

8. Which point represents a value that is less than 3 and greater than 0?

B. List all the points that satisfy each inequality.



1. less than -7

2. greater than -2

3. less than 18

4. greater than 0

5. greater than -12

6. less than 0

7. less than -16

8. greater than -20

9. less than 4

10. greater than -11

Name _____ Date _____

III. Using Absolute Value**A. Complete each statement.**

1. $|-2| = \underline{\hspace{2cm}}$

2. $|15| = \underline{\hspace{2cm}}$

3. $|-10| = \underline{\hspace{2cm}}$

4. $|0| = \underline{\hspace{2cm}}$

5. $|8| = \underline{\hspace{2cm}}$

6. $|-16| = \underline{\hspace{2cm}}$

7. $|-7| = \underline{\hspace{2cm}}$

8. $|20| = \underline{\hspace{2cm}}$

9. $|3| = \underline{\hspace{2cm}}$

10. $|-5| = \underline{\hspace{2cm}}$

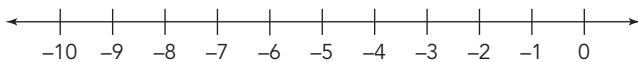
B. Write an absolute value statement and an integer to represent each situation.

1. The temperature went from 45 degrees Fahrenheit to 10 degrees Fahrenheit.
2. The value of his stock went from \$500 to \$250 last year.
3. The water level dropped from 10 feet to 2 feet.
4. His savings account decreased from \$1500 to \$100.
5. Her elevation went from 3025 feet to 1209 feet.
6. The population decreased from 18,453 to 11,231.

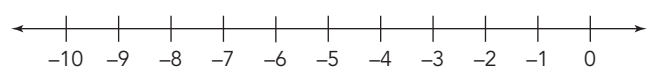
IV. Graphing Inequalities with Rational Numbers

A. Graph the solution set for each given inequality.

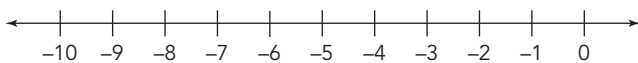
1. $x < -6$



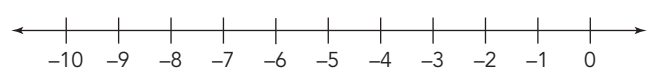
2. $x \geq -8\frac{1}{2}$



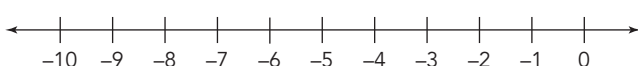
3. $-4.5 < x$



4. $-7 \geq x$



5. $x > -2.5$



6. $x \leq -9$

