Integers and the Number Line Homework   Name _____

1. Write an integer to represent each of the following situations:

   a) A company loses $345,000 in 2011. _____

   b) You earned $25 for dog sitting. _____

   c) The town is 454 ft. above seal level. _____

      What does *zero* mean in this situation? _____

Insert the correct comparison symbol. (< , > , =)

2)   −4 ☐ −10   3)   − (−7) ☐ 0   4)   5 ☐ −5

5)   − (−1) ☐ 1   6)   −2 ☐ −6   7)   −4 ☐ −(4)

8)   18 ☐ 0   9)   3 ☐ −(−(−2))   10)   −2 ☐ −(−10)

Order the following Lists from least to greatest.
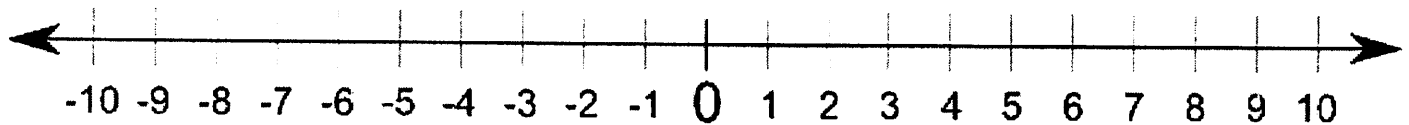
11)   −5, − (−3), −9, 2, −1

12)   −2, −(−11), −20, −(5), −1

13) Scientists are studying temperatures and weather patterns in the Northern Hemisphere. They recorded temperatures (in degrees Celsius) in the table below. Represent each reported temperature using an integer.

Temperatures as Reported	8 below zero	12	-4	13 below zero	0	2 above zero	6 below zero	-5
Temperature (°C)								

Order the temperatures from <u>least to greatest</u>.

14) Evaluate using the Number Line.

a) $6 - 8 =$

b) $-5 + 2 =$

c) $1 - 8 + 7 =$

d) $5 - (-3) =$

e) $6 - 10 =$

f) $-7 - (-8) =$

15) Yesterday's 7 A.M. temperature for four towns in ski country are shown in the table.

a) Which town was the coldest?

_____

a) Which town was the warmest?
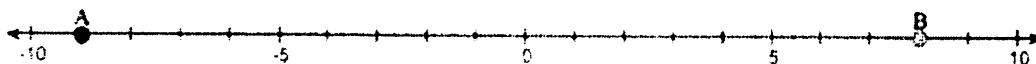
_____

c) Which town had a temperature closest to 0?

_____

Ski Country Temperatures	
Town	Temperatures (°F)
Icy Falls	-8
Snow Mountain	5
Winterville	-7
Cold Valley	-6

d) How much colder was the coldest town than the warmest town?

_____

16) **Error Analysis** Your friend incorrectly says that point A and point B represent opposite integers.

a) What is the opposite of the integer represented by point A?

_____

b) What is the opposite of the integer represented by point B?

_____

c) Why is your friend incorrect?
- ○ A. The distance from 0 to point A is greater than the distance from 0 to point B.
- ○ B. The distance from 0 to point A is less than the distance from 0 to point B.
- ○ C. Points A and B are not on opposite sides of 0.
- ○ D. Points A and B are not the same point.

Integers and the Number Line Homework   Name _____ **Key**

1. Write an integer to represent each of the following situations:

   a) A company loses $345,000 in 2011. ___−$345,000___

   b) You earned $25 for dog sitting. ___+$25___

   c) The town is 454 ft. above seal level. ___454___

      What does *zero* mean in this situation? ___Sea level___

Insert the correct comparison symbol. (< , > , =)

2) −4 **>** −10

3) − (−7) **>** 0   (7)

4) 5 **>** −5

5) − (−1) **=** 1   (1)

6) −2 **>** −6

7) −4 **=** −(4)

8) 18 **>** 0

9) 3 **>** −(−(−2))   (−2)

10) −2 **<** −(−10)   (10)

Order the following Lists from least to greatest.

11) −5, − (−3), −9, 2, −1   (3)

$$-9, -5, -1, 2, -(-3)$$

12) −2, −(−11), −20, −(5), −1   (11)(−5)
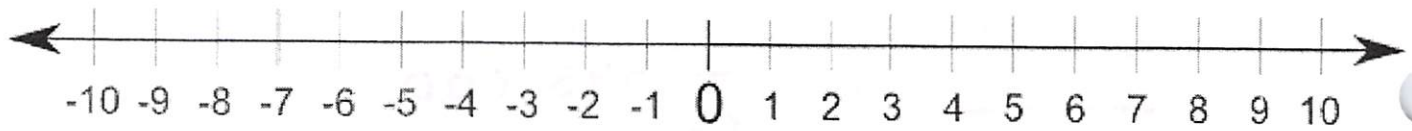
$$-20, -(5), -2, -1, -(-11)$$

13) Scientists are studying temperatures and weather patterns in the Northern Hemisphere. They recorded temperatures (in degrees Celsius) in the table below. Represent each reported temperature using an integer.

Temperatures as Reported	8 below zero	12	-4	13 below zero	0	2 above zero	6 below zero	-5
Temperature (°C)	−8	12	−4	−13	0	2	−6	−5

Order the temperatures from least to greatest.

$$-13, -8, -6, -5, -4, 0, 2, 12$$

14) Evaluate using the Number Line.

```
←——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——|——→
   -10 -9 -8 -7 -6 -5 -4 -3 -2 -1  0  1  2  3  4  5  6  7  8  9  10
```

a) $6 - 8 =$ **-2**   b) $-5 + 2 =$ **-3**   c) $1 - 8 + 7 =$ **0**

d) $5 - (-3) =$ **8**   e) $6 - 10 =$ **-4**   f) $-7 - (-8) =$ **1**

15) Yesterday's 7 A.M. temperature for four towns in ski country are shown in the table.

a) Which town was the coldest?

Icy Falls

a) Which town was the warmest?

Snow Mountain

c) Which town had a temperature closest to 0?

Snow Mountain

Ski Country Temperatures	
Town	Temperatures (°F)
Icy Falls	-8
Snow Mountain	5
Winterville	-7
Cold Valley	-6

d) How much colder was the coldest town than the warmest town?

$-8 \xrightarrow{+8} 0 \xrightarrow{+5} 5 =$ **13° colder**

16) **Error Analysis** Your friend incorrectly says that point A and point B represent opposite integers.

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←+—•——|——|——|——|——|——|——|——|——|——|——|——|——|——|——•|——|——|+→
  -10 -9              -5              0              5     8  10
      A                                                B
```

a) What is the opposite of the integer represented by point A?

9

b) What is the opposite of the integer represented by point B?

-8

c) Why is your friend incorrect?

● A. The distance from 0 to point A is greater than the distance from 0 to point B. **9 units 8 units**

○ B. The distance from 0 to point A is less than the distance from 0 to point B.

○ C. Points A and B are not on opposite sides of 0.

○ D. Points A and B are not the same point.