Sixth Grade
Math Vocabulary
S.O.L. 6.3 – Integers

1. Integer

A whole number with no fractional part. They can be positive, negative, or zero. Therefore, the numbers 10, 0, -25, and 5148 are all integers.

Examples: -16, -3, 0, 1, 198

2. Positive numbers

any numbers greater than zero. They may be written with a positive sign (+), but they are normally written without. For each positive number, there is a negative number that is its opposite.

Examples: 1, 2.9, 3.14159, 40000, and 0.0005

3. Negative numbers

numbers that are less than zero. Similarly, the opposite of any negative number is a positive number. For example, the opposite of -12.3 is 12.3.

Examples: -1, -2.9, -3.14159, -40000, and -0.0005

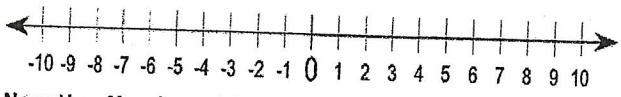
4. Set

A group of items such as prime numbers, composite numbers, and factors.

Examples: 2, 3, 5, 7...

5. Ordering Integers

Integers are listed from least to greatest as you move left to right along the number line.



Negative Numbers (-) Positive Numbers (+)

(The line continues left and right forever.)

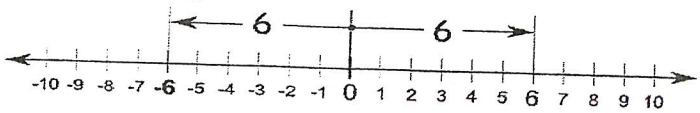
Numbers on the right are bigger than numbers on the left:

- 8 is greater than 5
- 1 is greater than -1
- But notice that -8 is **smaller than** -5

6. Opposites

the same distance from 0, but on opposite sides of 0. The opposite of 0 is itself 0.

Example:



Name _____ Date _____ Class _____

LESSON 11-1

Puzzles, Twisters & Teasers

What Number Am I?

I am one of the numbers in the box below. Use the clues to eliminate numbers that are not me. What number is left?

You must use the clues *in order.*

-13.4	7	38	$19\frac{1}{2}$
-42	1	4.2	
-23	90	$\frac{15}{6}$	-7
-90	42		

1. I am an integer, so cross out any number that is not an integer.

_____

2. My opposite and I are both in the box, so cross out any number that does not have an opposite in the box.

_____

3. I could be a recorded temperature on Earth, so cross out any number that is too low or too high.

_____

4. Now cross out the opposite of #3.

_____

5. If I were a temperature, I would be the lowest temperature not yet crossed out.

_____

6. Now cross out all remaining positive numbers.

_____

What number am I? ____

Name _____ Date _____ Class _____

LESSON 11-1

Practice A

Integers in Real-World Situations

Circle the letter that best represents each situation.

1. a gain of 5 yards in football

   A −5
   B +5
   C −50
   D +50

2. a bank withdrawal of $25

   F −2
   G +5
   H −25
   J +25

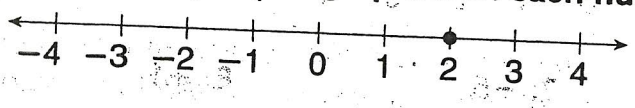
3. an elevation of 9 feet below sea level

   A −9
   B 1 + 9
   C 9 − 0
   D +9

4. a plant growth of 10 inches

   F +1
   G −1
   H −10
   J +10

Write the integer that is graphed on each number line.

5. 

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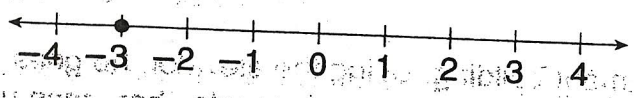
6. 

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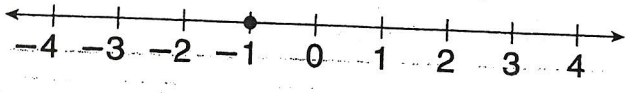
7. 

_____

8. The average temperature in Fairbanks, Alaska, in February is 4°F below zero. Write this temperature as an integer.

   _____

9. The average temperature in Fairbanks, Alaska, in November is 2°F above zero. Write this temperature as an integer.

   _____

Name _____ Date _____ Class _____

LESSON 11-1

Practice B

Integers in Real-World Situations

Name a positive or negative number to represent each situation.

1. depositing $85 in a bank account

_____

2. riding an elevator down 3 floors

_____

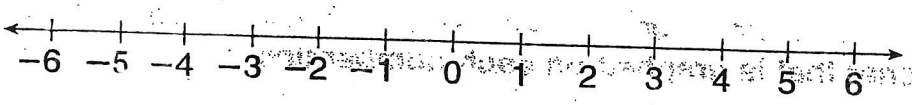
3. the foundation of a house sinking 5 inches

_____

4. a temperature of 98° above zero

_____

Graph each integer and its opposite on the number line.



5. −2

_____

6. +3

_____

7. −5

_____

8. +1

_____

9. Felix is a superintendent for an apartment building. Using the elevator, he goes from the ground floor down 1 floor to the basement to get his tools, then goes up 5 floors to fix the heater in one of the apartments, and then down 2 floors to fix the stove in another of the apartments. Write an expression to represent this situation.

_____

10. The highest point in the state of Louisiana is Driskall Mountain. It rises 535 feet above sea level. Write the elevation of Driskall Mountain as an integer.

_____

11. The lowest point in the state of Louisiana is New Orleans. This city's elevation is 8 feet below sea level. Write the elevation of New Orleans as an integer.

_____

Name _____ Date _____ Class_____

Sixth Grade
Math Vocabulary Quiz
S.O.L. 6.5 – Integers

1._____ any numbers greater than zero. They may be written with a positive sign (+), but they are normally written without. For each positive number, there is a negative number that is its opposite.

2._____ numbers that are less than zero. Similarly, the opposite of any negative number is a positive number. For example, the opposite of -12.3 is 12.3.

3._____ A whole number with no fractional part. They can be positive, negative, or zero. Therefore, the numbers 10, 0, -25, and 5148 are all integers.

4._____ A group of items such as prime numbers, composite numbers, and factors.

5._____ the same distance from zero, but on opposite sides of zero. The opposite of zero is itself zero.

6._____ Integers are listed from least to greatest as you move left to right along the number line.

Positive Numbers
Ordering Integer

Negative Numbers
Opposite Integer

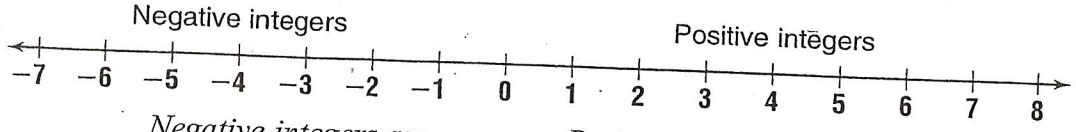
Set
Integer

Name _____ Date _____

11-1 Study Guide

Integers

An **integer** is any number from the set $\{\ldots, -3, -2, -1, 0, 1, 2, 3, \ldots\}$ where . . . means *continues without end.*



Negative integers are written with a − sign.

Positive integers can be written with or without a + sign.

Examples

1 **Write an integer to show 5 degrees below zero.**

Write: -5

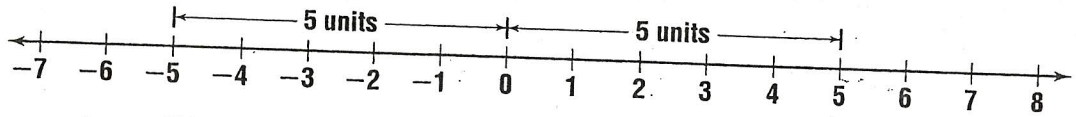
2 **Write an integer to show a 7 degree rise in temperature.**

Write: $+7$ or 7

Opposite integers are the same distance from zero on opposite sides of the number line.

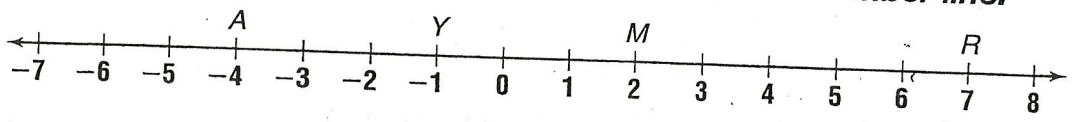
Example

3 **Write the opposite of +5.**



The opposite of $+5$ is -5.

Write the integer represented by each letter on the number line.



1. M
2. A
3. Y
4. R

Write an integer to describe each situation.

5. 4 feet below sea level
6. a gain of 8 points
7. 2 degrees above zero
8. a loss of 6 pounds

Write the opposite of each integer.

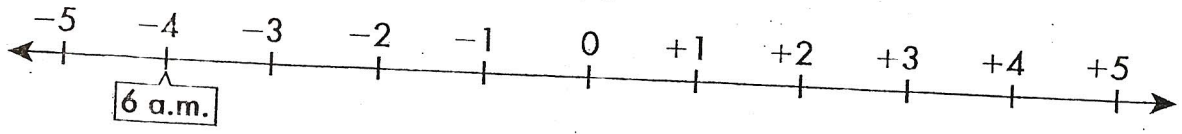
9. 6
10. -2
11. 14
12. -10

Name _____ Date _____

ROLE OF INTEGERS

At 6 a.m. the temperature was four degrees below zero. At noon, the temperature had increased by 7 degrees. What was the temperature at noon?

You can use a number line to add or subtract integers.



1. Which way should you move on a number line to show an increase or gain?

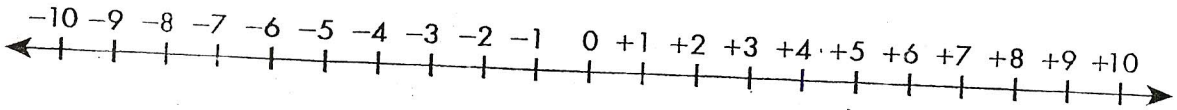
_____

2. Which integer is 7 spaces to the right of −4? _____

3. What was the temperature at noon?

_____

A football team lost 5 yards on the first play of the game. On the second play, the team lost another 3 yards. On the third play, the team gained 2 yards. If the team began at its 9 yard line, aiming to advance toward greater numbers, where was the ball placed after the third play?



4. Make a mark on the number line that represents where the team started. How will you move to show what happened after the first play?

_____

5. Make a mark that represents where the team started the second play. How will you show what happened after the second play?

_____

6. Make a mark that represents where the team started the third play. How will you show what happened after the third play?

_____

7. Make a mark that represents where the team ended the series. Where was the ball placed after the third play?

_____

Name _____ Date _____ Class _____

LESSON 11-1

Reading Strategies

Use Context

We get information from the numbers we read.

A **positive number** is greater than zero. The plus sign (+) denotes a positive number. If no sign is shown, the number is positive.

- Our car travels 55 miles per hour. → 55 or +55
- The temperature climbed to 90°. → 90 or +90

Write the positive number for each of the following situations.

1. Alicia put $25 in her savings account.

_____

2. Oklahoma City is 1,195 feet above sea level.

_____

3. Our football team gained 12 yards on the last play.

_____

A **negative number** is less than zero. A negative sign (−) is always used to denote a negative number.

- Death Valley is 282 feet below sea level. → −282
- The temperature dipped to 12° below zero. → −12

Write the negative number for each of the following situations.

4. Dave withdrew $50 from his savings account.

_____

5. The coldest temperature recorded in Antarctica was 127° below zero.

_____

6. Oarfish live at 3,000 feet below sea level.

_____

Name _____ Date _____ Class _____

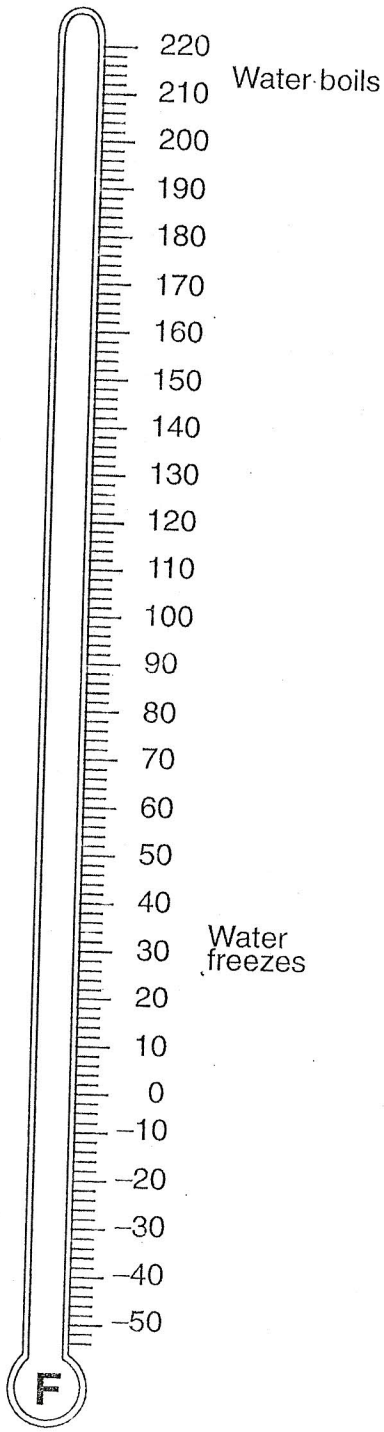
LESSON 11-1

Challenge

Boiling Up and Freezing Down

Draw a line on the thermometer to show each given temperature record. Then label each state's name at its correct line on the thermometer.

1. The lowest temperature in California was recorded on January 20, 1937. It was −45°F.
2. The highest temperature in North Carolina was recorded on August 21, 1983. It was 110°F.
3. The lowest temperature in Georgia was recorded on January 27, 1940. It was −17°F.
4. The highest temperature in Maine was recorded on July 10, 1911. It was 105°F.
5. The lowest temperature in Missouri was recorded on February 13, 1905. It was −40°F.
6. The lowest temperature in Texas was recorded on February 8, 1933. It was −23°F.
7. The highest temperature in Maryland was recorded on July 10, 1936. It was 109°F.
8. The lowest temperature in Massachusetts was recorded on January 12, 1981. It was −35°F.
9. The highest temperature in Oklahoma was recorded on June 27, 1994. It was 120°F.
10. The highest temperature in Mississippi was recorded on July 29, 1930. It was 115°F.



ACTIVITY 101 Place Value of Decimals

Name:_____

Date:_____

The place value of a decimal is determined by the number of digits to the right of the decimal point.

Decimal	Place Value	Words	Fraction Value
0.2	tenths	two-tenths	2/10
0.02	hundredths	two-hundredths	2/100
0.002	thousandths	two-thousandths	2/1,000
0.0002	ten thousandths	two-ten-thousandths	2/10,000

Rewrite the decimals on the place value chart.

1. 0.7
2. 0.92
3. 0.107
4. 0.635
5. 0.809

Ones	Tenths	Hundredths	Thousandths
0.			
0.			
0.			
0.			
0.			

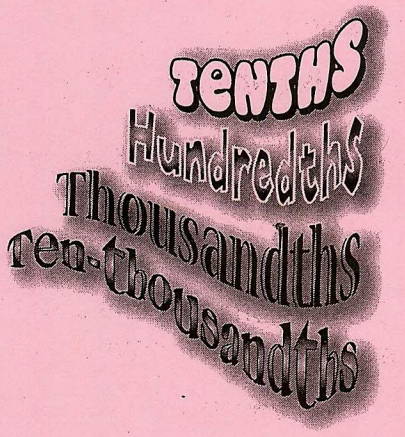
ACTIVITY 102 Place Value of Decimals

Name:_____

Date:_____

Write the decimal numbers to match the words.

1. six-tenths = _____
2. thirty-four-hundredths = _____
3. six-hundredths = _____
4. seventy-three-hundredths = _____
5. eight-thousandths = _____
6. one-thousandth = _____
7. eight hundred fourteen-thousandths = _____
8. four hundred twenty-six-thousandths = _____



Write the words for the decimal numbers.

9. 0.68 = _____
10. 0.306 = _____

Name _____ Date _____ Class _____

LESSON 11-1

Reteach

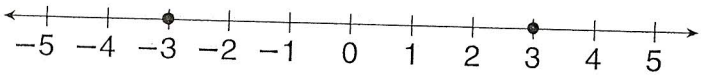
Integers in Real-World Situations

Positive numbers are greater than 0. Use a positive number to represent a gain or increase. Include the positive sign (+).

an increase of 10 points +10
a flower growth of 2 inches +2
a gain of 15 yards in football +15

Negative numbers are less than 0. Use a negative number to represent a loss or decrease. Also use a negative number to represent a value below or less than a certain value. Include the negative sign (−).

a bank withdrawal of $30 −30
a decrease of 9 points −9
2° below zero −2



negative numbers positive numbers

Opposites are the same distance from zero on a number line, but in different directions. −3 and 3 are opposites because each number is 3 units from zero on a number line.

Integers are the set of all whole numbers and their opposites.

Name a positive or negative number to represent each situation.

1. an increase of 3 points

_____

2. spending $10

_____

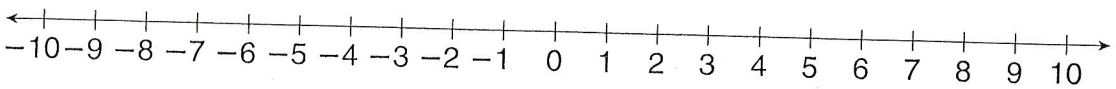
3. earning $25

_____

4. a loss of 5 yards

_____

Graph each integer and its opposite on a number line.



5. −1

_____

6. 9

_____

7. 6

_____

8. −5

_____

Name _____ Date _____ Class _____

LESSON 11-1

Problem Solving

Integers in Real-World Situations

Write the correct answer.

1. The element mercury is used in thermometers because it expands as it is heated. Mercury melts at 38°F below zero. Write this temperature as an integer.

_____

2. Denver, Colorado, earned the nickname "Mile High City" because of its elevation of 5,280 feet above sea level. Write Denver's elevation as an integer in feet and miles.

_____

3. The lowest temperature recorded in San Francisco was 20°F. Buffalo's lowest recorded temperature was the opposite of San Francisco's. What was Buffalo's record temperature?

_____

4. Greenland holds the record for the lowest temperature recorded on Earth. That temperature in degrees Fahrenheit is 65 degrees below zero. What is Earth's lowest recorded temperature written as an integer?

_____

5. In 1960, explorers on the submarine *Trieste 2* set the world record for the deepest dive. The ship reached 35,814 feet below sea level. Write this depth as an integer.

_____

6. In 1960, Joseph W. Kittinger, Jr., set the record for the highest parachute jump. He jumped from an air balloon at 102,800 feet above sea level. Write this altitude as an integer.

_____

Circle the letter of the correct answer.

7. Which situation cannot be represented by the integer −10?
   - **A** an elevation of 10 feet below sea level
   - **B** a temperature increase of 10°F
   - **C** a golf score of 10 under par
   - **D** a bank withdrawal of $10

8. Paper was invented in China one thousand, nine hundred years ago. Which integer represents this date?
   - **F** 1,900
   - **G** 900
   - **H** −1,900
   - **J** −1,000

9. The elevation of the Dead Sea is about 1,310 feet below sea level. Which integer represents this elevation?
   - **A** −1,310
   - **B** −131
   - **C** 131
   - **D** 1,310

10. The quarterback had a 10-yard loss and then a 25-yard gain. Which integer represents a 25-yard gain?
   - **F** −25
   - **G** −10
   - **H** 25
   - **J** 10

Name _____ Date _____ Class _____

LESSON 11-1

Practice A

Integers in Real-World Situations

Circle the letter that best represents each situation.

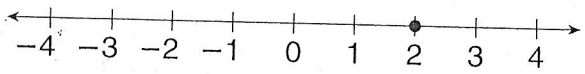
1. a gain of 5 yards in football
   - **A** −5
   - **B** +5
   - **C** −50
   - **D** +50

2. a bank withdrawal of $25
   - **F** −2
   - **G** +5
   - **H** −25
   - **J** +25

3. an elevation of 9 feet below sea level
   - **A** −9
   - **B** 1 + 9
   - **C** 9 − 0
   - **D** +9

4. a plant growth of 10 inches
   - **F** +1
   - **G** −1
   - **H** −10
   - **J** +10

Write the integer that is graphed on each number line.

5. 

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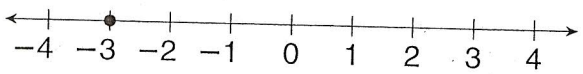
6. 

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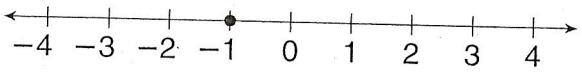
7. 

_____

8. The average temperature in Fairbanks, Alaska, in February is 4°F below zero. Write this temperature as an integer.

_____

9. The average temperature in Fairbanks, Alaska, in November is 2°F above zero. Write this temperature as an integer.

_____

Name _____ Date _____ Class _____

LESSON 11-1

Practice B

Integers in Real-World Situations

Name a positive or negative number to represent each situation.

1. depositing $85 in a bank account

_____

2. riding an elevator down 3 floors

_____

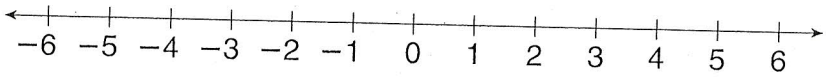
3. the foundation of a house sinking 5 inches

_____

4. a temperature of 98° above zero

_____

Graph each integer and its opposite on the number line.



5. −2

_____

6. +3

_____

7. −5

_____

8. +1

_____

9. Felix is a superintendent for an apartment building. Using the elevator, he goes from the ground floor down 1 floor to the basement to get his tools, then goes up 5 floors to fix the heater in one of the apartments, and then down 2 floors to fix the stove in another of the apartments. Write an expression to represent this situation.

_____

10. The highest point in the state of Louisiana is Driskall Mountain. It rises 535 feet above sea level. Write the elevation of Driskall Mountain as an integer.

_____

11. The lowest point in the state of Louisiana is New Orleans. This city's elevation is 8 feet below sea level. Write the elevation of New Orleans as an integer.

_____

Name _____ Date _____ Class _____

LESSON 11-1

Practice C

Integers in Real-World Situations

Write a situation that each integer could represent.

1. −5 _____

2. −27 _____

3. +98 _____

4. +100 _____

5. −75 _____

6. 316 _____

Write the opposite of each integer.

7. −12 _____

8. +34 _____

9. −7 _____

10. −9 _____

11. 0 _____

12. +15 _____

13. Luke is a messenger for a package-delivery company. He starts at the company's office and walks 4 blocks due west to deliver the first package, then 5 blocks due east to deliver the second package, then 1 more block due east to deliver the last package, and finally 2 blocks due west back to the office. Write an expression to represent this situation.

_____

14. Are there any integers between 0 and 1? Explain.

_____

_____

15. Death Valley, California, has the lowest point in the United States. Its elevation is 282 feet below sea level. Mount McKinley, Alaska, has the highest point in the United States. Its elevation is 20,320 feet above sea level. Use integers to describe these two locations in the United States.

_____

_____

Lesson 8-1

Example 1 Write Integers for Real-Life Situations
Write an integer to describe the situation below.
STOCK an increase of $9

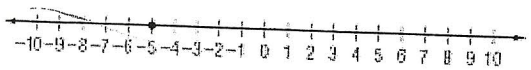
The word *increase* represents a positive number. The integer is +9 or 9.

Example 2 Write Integers for Real-Life Situations
Write an integer to describe the situation below.
WEATHER a temperature of 4 degrees below zero

Any number that is *below zero* is a negative number. The integer is –4.

Example 3 Graph an Integer on a Number Line
Graph –5 on a number line.

Draw a number line. Then draw a dot at the location that represents –5.



Example 4 Compare Integers
Replace the • in –3 • –8 with <, >, or = to make a true sentence.

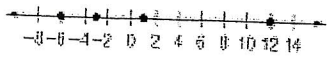
Graph –3 and –8 on a number line. Then compare.

Since –3 is to the right of –8, –3 > –8.

Example 5 Order Integers

TEMPERATURE Suppose the daily high temperatures for the past four days were −6°F, 12°F, −3°F, and 1°F. Order the temperatures from least to greatest.

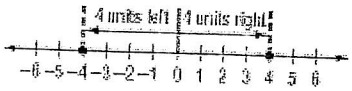
First, graph each integer. Then, write the integers as they appear on the number line from left to right.



The order from least to greatest is −6°, −3°, 1°, and 12°.

Example 6 Find the Opposite of an Integer

Write the opposite of +4.



The opposite of +4 is –4.

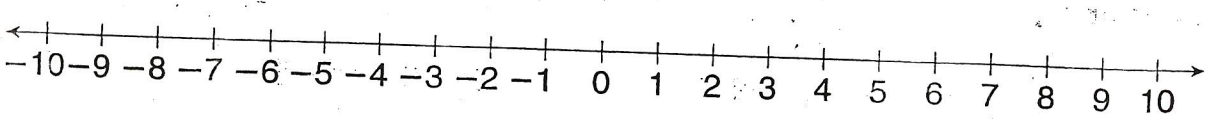
Name _____ Date _____ Class _____

LESSON 1-2

Practice B

Comparing and Ordering Integers

Use the number line to compare each pair of integers. Write < or >.



1. 10 ☐ −2
2. 0 ☐ 3
3. −5 ☐ 0
4. −7 ☐ 6
5. −6 ☐ −9
6. −8 ☐ −10

Order the integers in each set from least to greatest.

7. 5, −2, 6 _____
8. 0, 9, −3 _____
9. −1, 6, 1 _____
10. −8, −9, 9 _____
11. 15, 1, −5 _____
12. −4, −7, −2 _____

Order the integers in each set from greatest to least.

13. 8, −6, 4 _____
14. −2, 1, 2 _____
15. 0, 7, −8 _____
16. −1, 1, 0 _____
17. −12, 2, 1 _____
18. −10, −12, −11 _____

19. The lowest point in the Potomac River is 1 foot above sea level. The lowest point in the Colorado River is 70 feet above sea level. The lowest point in the Delaware River is sea level. Write the names of these three rivers in order from the lowest to the highest elevation.

_____

20. The lowest recorded temperature in Alabama was 27°F below zero. In Florida, the lowest recorded temperature was 2°F below zero. The lowest temperature ever recorded in Hawaii was 12°F above zero. Write the names of these three states in order from the highest to the lowest recorded temperatures.

_____

Name _____ Date _____ Class _____

LESSON 11-2

Practice C

Comparing and Ordering Integers

Compare. Write < or >.

1. $-99 \square 97$
2. $-1{,}876 \square -1{,}877$
3. $-1 \square |-2|$
4. $-75 \square -7$
5. $|+19| \square 9$
6. $205 \square -204$

Order the integers in each set from least to greatest.

7. $-15, -14, 20, -25$ _____
8. $16, -30, 0, -9$ _____
9. $78, -7, -8, 8$ _____
10. $205, -20, -5, |+50|$ _____
11. $-78, -89, 78, 9$ _____
12. $-55, |-2|, -60, 0$ _____

Order the integers in each set from greatest to least.

13. $12, -2, 10, -12$ _____
14. $-13, -16, 6, -3$ _____
15. $99, -9, -99, 9$ _____
16. $28, |-8|, -8, 0$ _____
17. $37, -37, -38, 38$ _____
18. $-111, -1, 1, 11$ _____

19. Four friends went scuba diving today. Ali dove 70 feet, Tim went down 50 feet, Carl dove 65 feet, and Brenda reached 48 feet below sea level. Write the four friends' names in order from the person whose depth was closest to the surface to the person whose depth was the farthest from the surface.

_____

20. Ted is comparing the temperatures of three days in January. The temperatures on Monday and Tuesday had the same absolute value. The temperature on Wednesday was neither positive nor negative. The temperature dropped below zero on Monday. Write the three days in order from the highest to the lowest temperatures.

_____

NAME _____ DATE _____ PERIOD ____

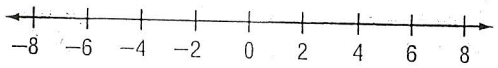
8-1 Practice: Skills

Integers

Write an integer to describe each situation.

1. a loss of 8 yards
2. an increase of 2 inches
3. 5 feet above sea level
4. a decrease of 6 members
5. scored 10 fewer points
6. earned 7 dollars interest
7. a gain of 5 pounds
8. 4 degrees below normal

Graph each integer on the number line.



9. 0
10. −3
11. 4
12. +6
13. −5
14. 1
15. −8
16. 7

Replace each ● with <, >, or = to make a true sentence.

17. −9 ● 8
18. 0 ● −1
19. +6 ● 6
20. −3 ● 3
21. 12 ● −21
22. −12 ● −10
23. 5 ● −5
24. −83 ● −80
25. −9 ● −9
26. −57 ● −75
27. −56 ● 56
28. 0 ● 0

Write the opposite of each integer.

29. −2
30. +6
31. −9
32. +8
33. −7
34. +10
35. +14
36. +12

Order each set of integers from least to greatest.

37. 2, −6, −2, 0
38. 9, −8, 4, −9
39. 5, −3, −11, 9
40. −3, 2, −4, −17

NAME _____ DATE _____ PERIOD ____

8-1 Study Guide and Intervention

Integers

An **integer** is any number from the set {..., −3, −2, −1, 0, 1, 2, 3, ...} where ... means *continues without end.* You can use a number line to compare integers. On a number line, the number on the left is always less than the number on the right. **Opposite integers** are the same distance from zero on opposite sides of the number line.

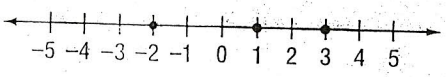
EXAMPLE 1 **Write an integer to show 3 degrees below zero.**

Numbers *below zero* are negative numbers.

The integer is −3.

EXAMPLE 2 **Order the integers 1, −2, and 3 from least to greatest.**

Graph each integer on a number line. Then compare.



The order from least to greatest is −2, 1, and 3.

EXERCISES

Write an integer to describe each situation.

1. 4 degrees below zero

2. a gain of 2 points

Replace each ● with <, >, or = to make a true sentence.

3. −2 ● 0

4. 3 ● −3

5. −9 ● −9

Write the opposite of each integer.

6. 3

7. −2

8. 1

9. −4

Order each set of integers from least to greatest.

10. −2, 3, 0, −1, 1

11. 3, −3, −2, 1, −1

12. 5, −7, −2, 1, 9

13. −2, 1, 5, −5, 0

Lesson 8–1

NAME _____ DATE _____ PERIOD ____

8-1

Practice: Word Problems

Integers

1. MONEY Katryn owes her father $25. Write this number as an integer.

2. **GEOGRAPHY** Mt. Whitney in California is 14,494 feet above sea level. Write this number as an integer.

3. GEOGRAPHY Badwater in Death Valley is 282 feet below sea level. Write this number as an integer.

4. **SCHOOL** Dick forgot to put his name on his homework. His teacher deducts 5 points for papers turned in without names on them. So, Dick lost 5 points from his score. Write this number as an integer.

5. GEOGRAPHY Multnomah Falls in Oregon drops 620 feet from the top to the bottom. Suppose a log is carried by the water from the top to the bottom of the falls. Write the integer to describe the location of the log now.

6. **TRAVEL** The train left the station and traveled ahead on the tracks for 30 miles. Write an integer to describe the new location of the train from the station.

7. WEATHER The table shows the average normal January temperature of four cities in Alaska. Compare the temperatures of Barrow and Fairbanks, using $<$, $>$, or $=$. Then compare the temperatures of Barrow and Anchorage.

City	Temperature (°F)
Anchorage	15
Barrow	−13
Fairbanks	−10
Juneau	24

8. **WEATHER** Use the table from Exercise 7. Write the temperatures of the four cities in order from highest to lowest temperature.

8-1

Practice: Word Problems

Integers

1. **MONEY** Katryn owes her father $25. Write this number as an integer.

2. **GEOGRAPHY** Mt. Whitney in California is 14,494 feet above sea level. Write this number as an integer.

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City	Temperature (°F)
Anchorage	15
Barrow	−13
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Juneau	24

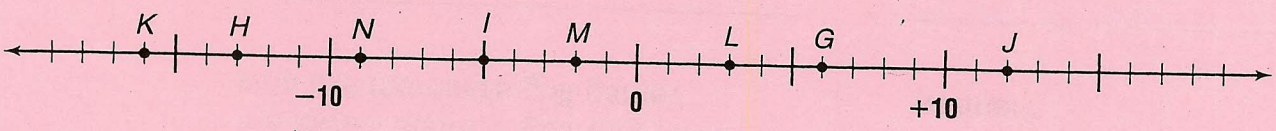
8. **WEATHER** Use the table from Exercise 7. Write the temperatures of the four cities in order from highest to lowest temperature.

11-1

Name _____ Date _____

Practice

Integers



1. I
2. L
3. M
4. H
5. J
6. K
7. G
8. N

Write an integer to describe each situation.

9. a gain of 5 pounds
10. 4 degrees below normal
11. a loss of 8 yards
12. positive 16
13. an increase of 2 inches
14. scored 10 fewer points
15. negative eighteen
16. 15 feet above sea level
17. earned 7 dollars interest
18. neither positive nor negative
19. bowled 9 pins above average
20. a decrease of 6 members

Write the opposite of each integer.

21. −25
22. 36
23. 54
24. −11
25. 98
26. −47
27. −62
28. 80
29. −73
30. 14
31. 105
32. −29

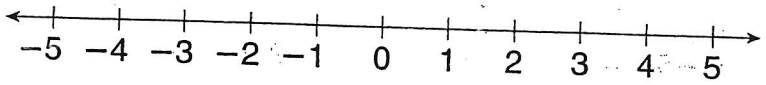
Name _____ Date _____ Class _____

LESSON 11-2

Practice A

Comparing and Ordering Integers

Use the number line to compare each pair of integers. Write < or >.



1. 4 ☐ 3

2. 1 ☐ 3

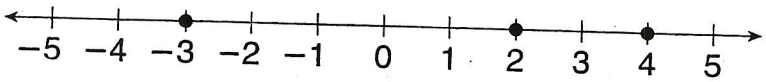
3. −2 ☐ 5

4. −2 ☐ 2

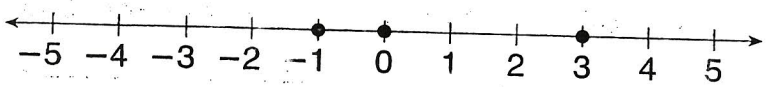
5. −5 ☐ −1

6. 0 ☐ −4

Use the number lines to order the integers from least to greatest.



7. 4, −3, 2 _____



8. 3, −1, 0 _____

Circle the letter of the correct answer.

9. Which set of integers is written from least to greatest?

   A 8, 0, 3, −1

   B 3, −1, 0, 8

   C 0, −1, 3, 8

   D −1, 0, 3, 8

10. Which set of integers is written from greatest to least?

    F 7, 4, −5, 2

    G 7, −5, 4, 2

    H 7, 4, 2, −5

    J −5, 2, 4, 7

11. Tim and Kylie played golf this morning. Tim scored −4, Kylie scored +3. Because the player with the lowest score in golf wins, who won this morning's golf game?

    _____

12. In Barrow, Alaska, the average temperature in December is −11°F. In January, the average temperature is −13°F. In which month is Barrow warmer?

    _____

Name _____ Date _____ Class _____

LESSON 11-2

Puzzles, Twisters & Teasers

To Tell the Truth

For each box, decide whether the statement is true or false.

If it is false, black out the box.

The remaining boxes will give you the visual effect of a number.

What is the number? ____

(Clue: The name of the number has the same number of letters as its value.)

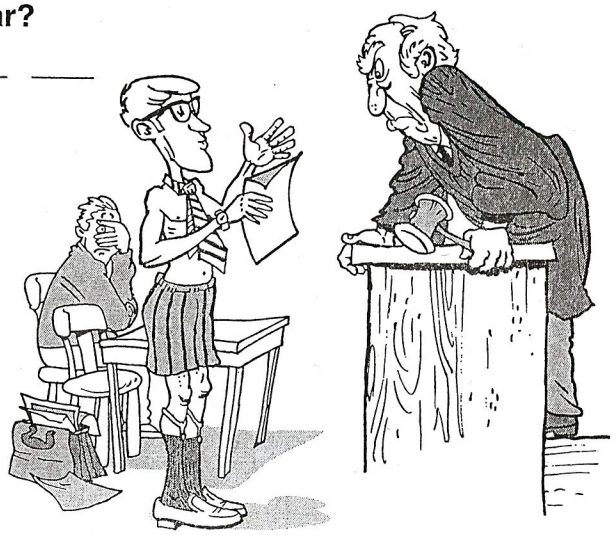
$2 > -7$ **W**	$-1 < -6$ **J**	$-7 > 2$ **M**
$-6 < -1$ **U**	Least to greatest $-4, 8, -27$ **R**	$0 > -1.5$ **S**
$\|2\| < \|-3\|$ **T**	$4 = \|-4\|$ **A**	Least to greatest $-27, -4, 8$ **L**
$\|-3\| < \|2\|$ **E**	$0 < -1.5$ **K**	$\|-4\| > \|-3\|$ **I**

Now see if you can answer the following riddle. To do so, take the letters from the boxes that you did not cross out and rearrange them.

The remaining letters are ____ ____ ____ ____ ____ ____ ____

What kind of suit do lawyers wear?

____ ____ ____ ____ ____ ____ ____



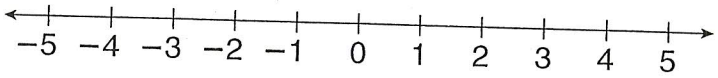
Name _____ Date _____ Class _____

LESSON 11-2

Practice A

Comparing and Ordering Integers

Use the number line to compare each pair of integers. Write < or >.



1. 4 ☐ 3

2. 1 ☐ 3

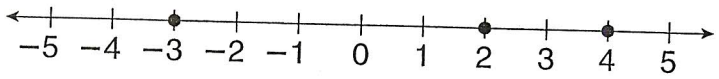
3. −2 ☐ 5

4. −2 ☐ 2

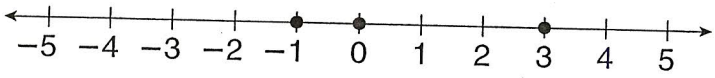
5. −5 ☐ −1

6. 0 ☐ −4

Use the number lines to order the integers from least to greatest.



7. 4, −3, 2 _____



8. 3, −1, 0 _____

Circle the letter of the correct answer.

9. Which set of integers is written from least to greatest?

A 8, 0, 3, −1

B 3, −1, 0, 8

C 0, −1, 3, 8

D −1, 0, 3, 8

10. Which set of integers is written from greatest to least?

F 7, 4, −5, 2

G 7, −5, 4, 2

H 7, 4, 2, −5

J −5, 2, 4, 7

11. Tim and Kylie played golf this morning. Tim scored −4, Kylie scored +3. Because the player with the lowest score in golf wins, who won this morning's golf game?

_____

12. In Barrow, Alaska, the average temperature in December is −11°F. In January, the average temperature is −13°F. In which month is Barrow warmer?

_____

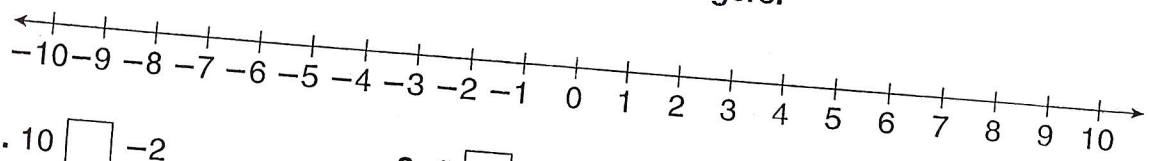
Name _____ Date _____ Class _____

LESSON 11-2

Practice B

Comparing and Ordering Integers

Use the number line to compare each pair of integers. Write < or >.



1. 10 ☐ −2

2. 0 ☐ 3

3. −5 ☐ 0

4. −7 ☐ 6

5. −6 ☐ −9

6. −8 ☐ −10

Order the integers in each set from least to greatest.

7. 5, −2, 6 _____

8. 0, 9, −3 _____

9. −1, 6, 1 _____

10. −8, −9, 9 _____

11. 15, 1, −5 _____

12. −4, −7, −2 _____

Order the integers in each set from greatest to least.

13. 8, −6, 4 _____

14. −2, 1, 2 _____

15. 0, 7, −8 _____

16. −1, 1, 0 _____

17. −12, 2, 1 _____

18. −10, −12, −11 _____

19. The lowest point in the Potomac River is 1 foot above sea level. The lowest point in the Colorado River is 70 feet above sea level. The lowest point in the Delaware River is sea level. Write the names of these three rivers in order from the lowest to the highest elevation.

_____

20. The lowest recorded temperature in Alabama was 27°F below zero. In Florida, the lowest recorded temperature was 2°F below zero. The lowest temperature ever recorded in Hawaii was 12°F above zero. Write the names of these three states in order from the highest to the lowest recorded temperatures.

_____

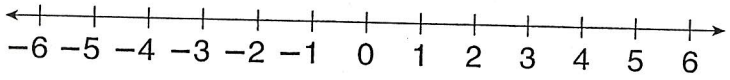
Name _____ Date _____ Class _____

LESSON 11-2

Reading Strategies

Use a Graphic Aid

Integers are all the **positive** and **negative** whole numbers and zero. Use a number line to help you picture and compare integers.



1. Start at the left and move to the right on the number line. As you move from left to right, do integers increase or decrease in value?

_____

2. Now start at the right and move to the left along the number line. As you move from right to left, do integers increase or decrease in value?

_____

You can compare two numbers by their location on a number line.

Compare −4 and −2. −4 is to the left of −2.

$-4 < -2$ → Read: "−4 is less than −2."

$-2 > -4$ → Read: "−2 is greater than −4."

3. Start at −5. Move to −1. Did you move to the right or to the left?

_____

4. Start at 3. Move to −2. Did you move to the right or to the left?

_____

5. Compare the locations of −3 and 3 on the number line above.

_____

6. Use < or > to compare −3 and 3.

_____

7. Compare the locations of −1 and −4 on the number line above.

_____

8. Use < or > to compare −1 and −4.

_____

Name _____ Date _____ Class _____

LESSON 11-2

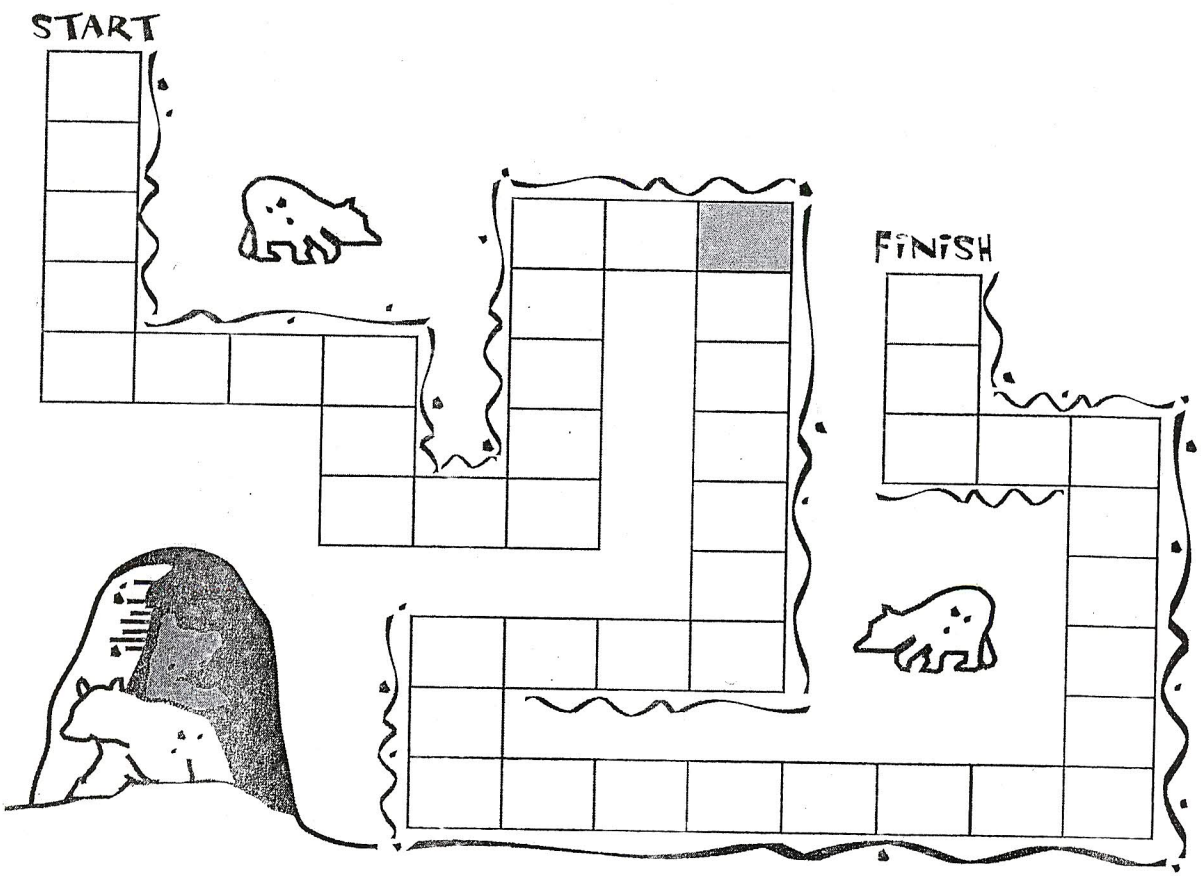
Challenge

Integer Maze

During winter, bears and many other animals hibernate, or go into a sleeplike state. When they do so, their body temperatures greatly decrease. How much can their temperatures change during hibernation?

Write the following integers along the maze so they are increasing from start to finish. The shaded box in the maze will have the answer to the question.

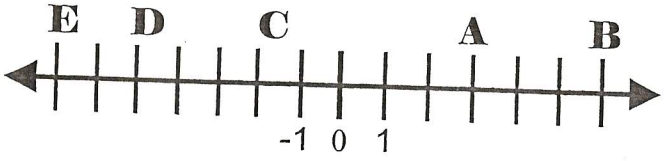
5, −14, −39, −3, 61, −60, −23, −72, −48, −11, 100, −45, 10, −57, −1, −29, −64, −37, 0, −65, 74, 98, −28, −7, −63, −49, −21, −54, 27, 53, −9, −32, −16, 35, −30, −18, −52, 86, −46, 42, −56, −41, −22, −43, 19



Name _____ Class _____ Date_____

Checkpoint Test 6.5

Use the number line to answer problems 1-3.



1. Identify the integer represented by the letter D.

A 4
B 5
C –4
D –5

2. Which letter represents the number –7?

A B
B C
C D
D E

3. What is the sum of the integers represented by A and B?

A 3
B 6
C 9
D 18

4. Which of these sets is ordered from greatest to least?

A 3, 1, –1, –3, -5
B 3, –3, 1, –1, -5
C 3, 1, -5, –3, –1
D –5, –3, –1, 1, 3

5. **Which integer has the greatest value?**

A –20
B 15
C 3
D –7

6. **Which integer has the least value?**

A –15
B –7
C 0
D –3

7. **What is the correct number sentence?**

A $-15 < -1 < 0$
B $-15 > 15 < -7$
C $0 < -6 > -20$
D $-7 < -3 > 0$

8. **What integer is the opposite of –3?**

A 0
B –13
C 3
D 13

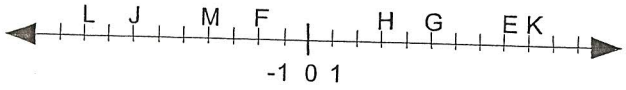
9. **Which of the following integers does NOT lie between –30 and 30?**

A –35
B 20
C –7
D –12

10. Which group of integers is arranged in order from least to greatest?

A –27, –13, –5, 0, 15
B 0, –5, –13, 15, –27
C –27, 15, –13, –5, 0
D 15, 0, –5, –13, –27

Use the number line below to answer questions *11, 12, and 13.*



11. Which of these sets is ordered from greatest to least?

A 4, 3, 2, –2, –3
B 4, 3, –3, 2, –2
C 4, 3, 2, –3, –2
D 4, –3, 3, –2, 2

12. Identify the integer represented by the letter *J*.

A –8
B –7
C 7
D 8

13. Which letter represents the number –9?

A J
B E
C L
D K

14. **Which integer represents the following statement?**
4 feet below sea level

A 4
B -4
C 0
D -1

15. **Which integer represents the following statement?**
A gain of 5 yards in football

A 55
B 5
C -5
D 25

Name _____ Date _____ Class _____

LESSON 11-2

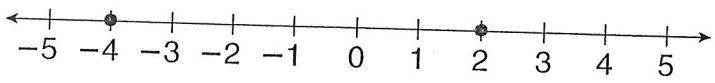
Reteach

Comparing and Ordering Integers

You can use a number line to compare and order integers.

As you move right on a number line, the values of the integers increase. As you move left on a number line, the values of the integers decrease.

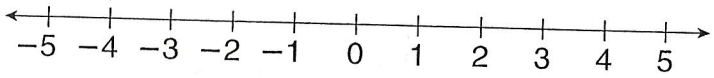
Compare -4 and 2.



-4 is to the left of 2, so $-4 < 2$.

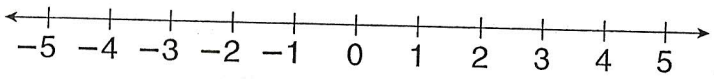
Compare the integers. Write < or >.

1.



1 ☐ −4

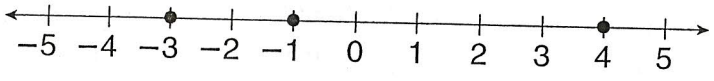
2.



−5 ☐ −2

3. −3 ☐ 2 **4.** −1 ☐ −4 **5.** 5 ☐ 0 **6.** −2 ☐ 3

Order -3, 4 and -1 from least to greatest.



List the numbers as they appear from left to right.

The integers in order from least to greatest are -3, -1, 4.

Order the integers from least to greatest.

7. −2, −5, −1 **8.** 0, −5, 5 **9.** −4, 2, −3 **10.** 3, −1, −4

_____ _____ _____ _____

Name _____ Date _____ Class _____

LESSON 11-2

Problem Solving

Comparing and Ordering Integers

Use the table below to answer each question.

Continental Elevation Facts

Continent	Highest Point	Elevation (ft) above sea level	Lowest Point	Elevation (ft) below sea level
Africa	Mount Kilimanjaro	19,340	Lake Assal	−512
Antarctica	Vinson Massif	16,066	Bentley Subglacial Trench	−8,327
Asia	Mount Everest	29,035	Dead Sea	−1,349
Australia	Mount Kosciusko	7,310	Lake Eyre	−52
Europe	Mount Elbrus	18,510	Caspian Sea	−92
North America	Mount McKinley	20,320	Death Valley	−282
South America	Mount Aconcagua	22,834	Valdes Peninsula	−131

1. What is the highest point on Earth? What is its elevation?

_____

_____

2. What is the lowest point on Earth? What is its elevation?

_____

_____

3. Which point on Earth is higher, Mount Elbrus or Mount Kilimanjaro?

_____

4. Which point on Earth is lower, the Caspian Sea or Lake Eyre?

_____

Circle the letter of the correct answer.

5. Which continent has a higher elevation than North America?
   - **A** Antarctica
   - **B** South America
   - **C** Europe
   - **D** Australia

6. Which continent has a lower elevation than Africa?
   - **F** Australia
   - **G** Europe
   - **H** Asia
   - **J** South America

7. Write the continents in order by their highest points, from highest elevation to lowest elevation.

_____

_____