LESSON 1-1

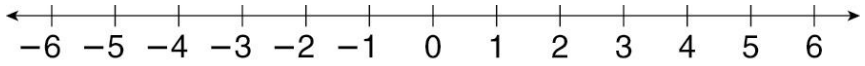
Identifying Integers and Their Opposites

Practice and Problem Solving: A/B

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

Write the correct answers.

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

   _____

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

    _____

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

    _____

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

    _____

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

    _____

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

    _____

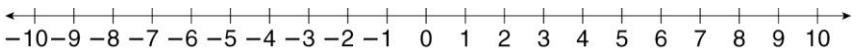
    _____

LESSON 1-2

Comparing and Ordering Integers

Practice and Problem Solving: A/B

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 _____

Order the integers in each set from greatest to least.

10. −1, 1, 0 _____
11. −12, 2, 1 _____
12. −10, −12, −11 _____
13. 205, −20, −5, 50 _____
14. −78, −89, 78, 9 _____
15. −55, −2, −60, 0 _____
16. 28, 8, −8, 0 _____
17. 37, −37, −38, 38 _____
18. −111, −1, 1, 11 _____

Solve.

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 4 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 were opposites. The temperature on Wednesday was neither positive nor negative. The temperature dropped below zero on Monday. Write the 3 days in order from the highest to the lowest temperature.

_____

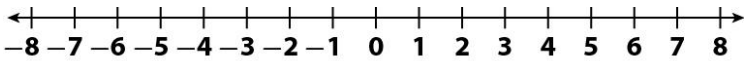
LESSON 1-3

Absolute Value

Practice and Problem Solving: A/B

Graph each number on the number line.

1. –6
2. 3
3. –3
4. 5



Use the number line to find each absolute value.

5. |–6| _____
6. |3| _____
7. |8| _____
8. |6| _____
9. |–3| _____
10. |5| _____

11. What do you notice about the absolute values of 6 and –6?

_____

12. What do you call –6 and 6 or 3 and –3? _____

Use the table for exercises 13–19.

Andrea's Credit-Card Transactions				
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Bought $20 shirt	Bought $6 lunch	Made $15 payment	Paid $3 fee	Bought $8 app

Write a negative integer to show the amount spent on each purchase.

13. Monday ___
14. Tuesday ___
15. Friday ___

Find the absolute value of each transaction.

16. Monday ___
17. Tuesday ___
18. Wednesday ___

19. On which day did Andrea spend the most on her card? Explain.

_____

Solve.

20. Show that $|3 + 10| = |3| + |10|$.

_____

21. How many different integers can have the same absolute value? _____ Give an example. _____

MODULE 1

Integers

Challenge

1. The table below shows in both degrees Celsius and degrees Fahrenheit the freezing and boiling points of pure ethanol.

Ethanol	Celsius (°C)	Fahrenheit (°F)
Freezing Point	−114	−173
Boiling Point	78	173

On a separate sheet of paper, draw two number lines without increments. On one, divide the line into even increments, then plot and label the two Celsius temperatures. On the other line, first plot and label the two Fahrenheit temperatures so that they align with the two Celsius temperatures on the first number line. Then divide the second number line into even increments. What do you notice about the size of the Fahrenheit and Celsius degrees?

_____

2. The following table shows average planting depths and flowering heights for several bulbs.

Bulb	Planting Depth (in.)	Height (in.)
Miniature Iris	3	5
Hyacinth	6	9
Trumpet Daffodil	6	18
Peacock Tulip	6	8
Perennial Tulip	7	21
Daffodil	6	12
Bluebell	4	12

a. Write the depths as integers._____

b. List those integers from least to greatest.

_____

c. Write the heights as integers._____

d. List those integers from least to greatest.

_____

e. Identify any opposites on your list.

_____