

LESSON
9-1 Homework and Practice
Understanding Integers

Name a positive or negative number to represent each situation.

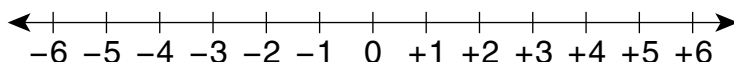
1. withdrawing \$124 from a bank account

2. paying \$25 to ride in a taxi cab

3. raising the height of a basketball goal by 6 inches

4. getting a bonus at work for \$789

Graph each integer and its opposite on the number line.



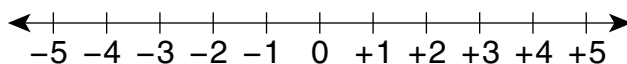
5. -4

6. $+6$

7. -1

8. 0

Use the number line to find the absolute value of each integer.



9. $|-4|$

10. $|+1|$

11. $|+5|$

12. $|-2|$

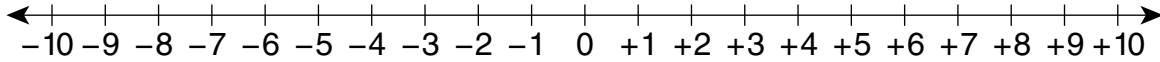
13. The highest point in the state of Colorado is Mt. Elbert. It rises 14,433 feet above sea level. Write the elevation of Mt. Elbert as an integer.

14. The lowest point in the state of California is Death Valley. Its elevation is 282 feet below sea level. Write the elevation of Death Valley as an integer.

LESSON

Homework and Practice**9-2 Comparing and Ordering Integers**

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



1. $-1 \square -5$

2. $-3 \square 4$

3. $-4 \square -5$

4. $-10 \square 0$

5. $-1 \square 7$

6. $7 \square 10$

Order the integers in each set from least to greatest.

7. 4, -1, -3

8. 3, 0, 10

9. -2, -3, -5

10. 10, -9, 6

11. 9, -1, 0

12. -3, 2, -1

Order the integers in each set from greatest to least.

13. 7, -2, 10

14. -1, 1, -3

15. -10, -4, -3

16. 7, 8, -3

17. -9, 12, 0

18. -4, -8, -1

19. The lowest point in Arkansas is 55 feet above sea level. The lowest point in Kansas is 679 feet above sea level. The lowest point in Louisiana is 8 feet below sea level. Write the names of these three states in order from the lowest to the highest elevation.

20. The lowest recorded temperature in California was 45°F below zero. In Delaware, the lowest recorded temperature was 17°F below zero. The lowest temperature recorded in Florida was 2°F below zero. Write the names of these three states in order from the highest to the lowest recorded temperature.

LESSON **9-3** **Homework and Practice** **The Coordinate Plane**

Use the coordinate plane to answer questions 1–12.

Name the quadrant where each point is located.

1. D _____ 2. P _____

3. Q _____ 4. Y _____

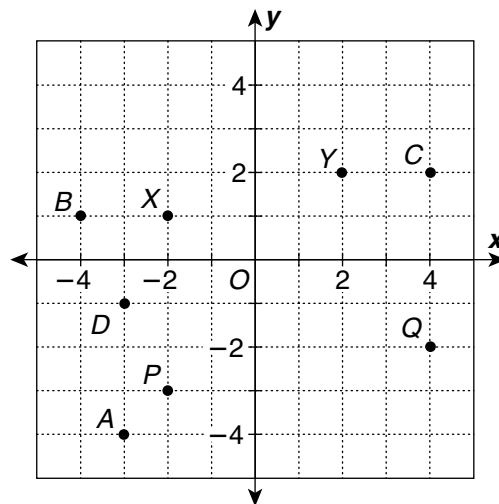
5. B _____ 6. C _____

Give the coordinates of each point.

7. B _____ 8. D _____

9. P _____ 10. C _____

11. Y _____ 12. X _____



Graph each point on the coordinate plane at the right.

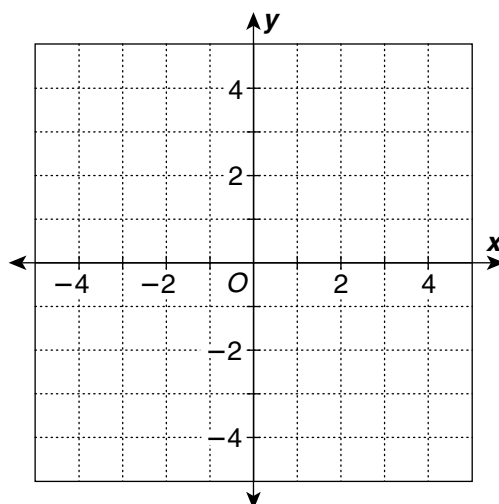
13. $M(-4, -2)$ 14. $U(0, -2)$

15. $V(-1, 4)$ 16. $E(2, -2)$

17. $J(0, 0)$ 18. $S(-3, 2)$

19. What do you know about the coordinates of a point in the third quadrant?

20. What is the only point on the graph that lies on both the x -axis and y -axis? What are the coordinates of this point?

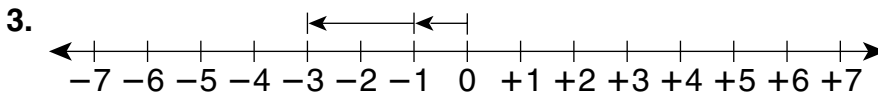
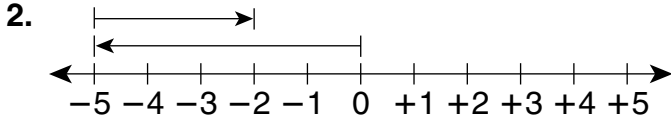
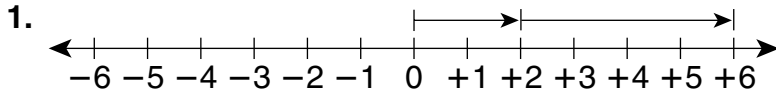


LESSON

9-4

Homework and Practice***Adding Integers***

Write the addition modeled on each number line.



Find each sum.

4. $4 + (-1)$ _____ 5. $-5 + (-3)$ _____ 6. $-10 + 11$ _____

7. $2 + (-1)$ _____ 8. $-4 + (-1)$ _____ 9. $-6 + 8$ _____

10. $0 + (-6)$ _____ 11. $-7 + 3$ _____ 12. $-3 + (-2)$ _____

Evaluate $n + (-1)$ for each value of n .

13. $n = 6$ _____ 14. $n = -1$ _____ 15. $n = 1$ _____

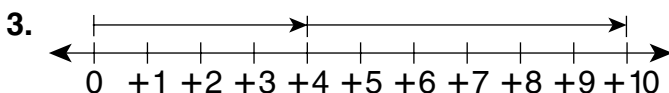
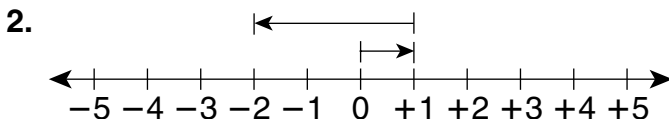
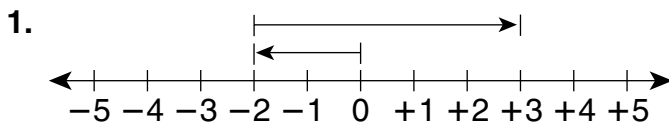
16. $n = -8$ _____ 17. $n = 10$ _____ 18. $n = -2$ _____

19. When Jermaine played golf today, he scored a $+3$ on the first hole, a -1 on the second hole, 0 on the third, and a -2 on the fifth. What was Jermaine's total score for the first four holes?
- _____

20. The average temperature for December was 3°F below zero. By January, the average temperature had decreased by 3 degrees. What was the average temperature in January?
- _____

LESSON
9-5 **Homework and Practice**
Subtracting Integers

Write the subtraction modeled on each number line.



Find each difference.

4. $-7 - (-2)$ _____ 5. $6 - (-8)$ _____ 6. $-2 - 7$ _____

7. $5 - 6$ _____ 8. $-4 - (-6)$ _____ 9. $-2 - 0$ _____

10. $4 - (-1)$ _____ 11. $-9 - (-9)$ _____ 12. $-4 - (-3)$ _____

Evaluate $n - (-4)$ for each value of n .

13. $n = 1$ _____ 14. $n = 6$ _____ 15. $n = -7$ _____

16. $n = 0$ _____ 17. $n = -1$ _____ 18. $n = 3$ _____

19. In a golf tournament, Lindsay scored a $+3$ on the first round and a -1 on the second round. What was the difference between her scores on the first two rounds?
- _____

20. Lake Champlain has an elevation of 95 feet above sea level. The elevation of Death Valley is 282 feet below sea level. What is the difference in the two locations' elevations?
- _____

LESSON
9-6 **Homework and Practice**
Multiplying Integers

Write the sign of each product.

1. -5×-8

2. -1×16

3. 4×12

4. -9×3

5. $1 \times (-8)$

6. $-1 \times (-3)$

Find each product.

7. $3 \times (-4)$ _____

8. -7×-1 _____

9. $3 \times (-2)$ _____

10. $-8 \times (-4)$ _____

11. $-3 \times (10)$ _____

12. $-7 \times (-5)$ _____

13. $9 \times (-3)$ _____

14. $-9 \times (-4)$ _____

15. 7×0 _____

Evaluate $3n$ for each value of n .

16. $n = -5$ _____

17. $n = 3$ _____

18. $n = 6$ _____

19. $n = -10$ _____

20. $n = -1$ _____

21. $n = 8$ _____

Evaluate $-3n$ for each value of n .

22. $n = -5$ _____

23. $n = 0$ _____

24. $n = 6$ _____

25. $n = -4$ _____

26. $n = 7$ _____

27. $n = -1$ _____

28. Last month, Tyler made eight withdrawals of \$15 each from his bank account and no deposits. What multiplication expression models Tyler's bank transactions last month?
- _____

29. The Atlantic Ocean is sinking 4 inches every century. Write a multiplication expression that models how much the Atlantic Ocean has sunk in the past 4 centuries?
- _____

LESSON
9-7 **Homework and Practice**
Dividing Integers

Write the sign of each quotient.

1. $72 \div -9$

2. $-16 \div (-4)$

3. $36 \div 9$

4. $-21 \div (-7)$

5. $-30 \div 5$

6. $69 \div (-3)$

Find each quotient.

7. $-12 \div 2$ _____

8. $18 \div 6$ _____

9. $-30 \div -10$ _____

10. $-14 \div 7$ _____

11. $-32 \div (-8)$ _____

12. $66 \div (-11)$ _____

13. $-72 \div (-9)$ _____

14. $-9 \div 3$ _____

15. $-100 \div (-10)$ _____

Evaluate $\frac{n}{(-3)}$ for each value of n .

16. $n = 18$ _____

17. $n = -33$ _____

18. $n = -3$ _____

19. $n = 0$ _____

20. $n = -6$ _____

21. $n = 27$ _____

Evaluate $n \div 6$ for each value of n .

22. $n = -36$ _____

23. $n = 18$ _____

24. $n = 60$ _____

25. $n = -12$ _____

26. $n = -18$ _____

27. $n = -42$ _____

28. What two division equations can you use to check the answer to the problem $-8 \times (-2) = 16$?

29. What two multiplication equations can you use to check the answer to the problem $-30 \div 5 = -6$?

30. Name two integers whose product is -27 and whose quotient is -3 ?

31. Name two integers whose product is -20 and whose quotient is -5 .

LESSON

9-8

Homework and Practice***Solving Integer Equations***

Write what you should do to solve each equation.

1. $x - 8 = -2$

2. $x + 4 = -8$

3. $-3x = 12$

4. $5x = -20$

5. $-14 + x = -1$

6. $x \div 5 = -5$

Solve each equation.

7. $-3x = -15$

8. $x + (-4) = -2$

9. $18 \div x = -6$

10. $x - (-3) = 4$

11. $-9 \div x = -3$

12. $x \div 3 = -10$

13. $13 + x = -3$

14. $(-8) + x = 12$

15. $-3x = 24$

16. $x - (-3) = 8$

17. $x \div -2 = 25$

18. $x - (-12) = -15$

19. $-7x = 14$

20. $-6x = -36$

21. $-6 + x = -7$

22. If you multiply a value, x , by -7 and the product is 35, what sign is the value of x ? Explain.

23. You separate an amount into 8 equal groups of -3 . Write and solve a division equation to model this situation.
