

LESSON

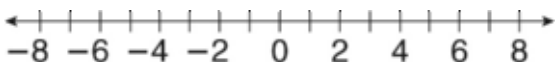
2-1

Practice B

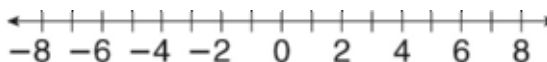
Integers

Graph each integer and its opposite on a number line.

1. 8



2. -7



Compare the integers. Use < or >.

3. -15 ___ -7

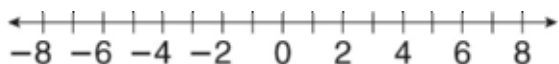
4. 8 ___ -8

5. -14 ___ 13

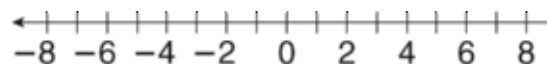
6. -18 ___ -20

Use a number line to order the integers from least to greatest.

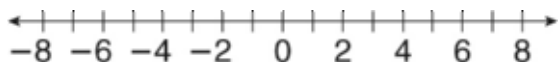
7. -1 ; 4 ; -5 ; 7 ; -3



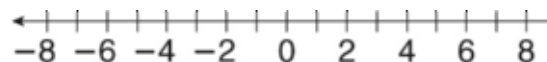
8. -6 ; 8 ; 0 ; 4 ; -2



9. 6 ; 5 ; -7 ; -8 ; -2



10. 1 ; 3 ; -4 ; -5 ; 7



Use a number line to find each absolute value.

11. $|-18|$ _____

12. $|11|$ _____

13. $|-25|$ _____

14. $|19|$ _____

15. $|-10|$ _____

16. $|16|$ _____

17. $|22|$ _____

18. $|-14|$ _____

19. $|9|$ _____

20. $|-24|$ _____

21. $|-7|$ _____

22. $|17|$ _____

23. Christy dove to a depth of 12 feet below the surface of the water. Write the depth as an integer.

24. The highest point in North Carolina is Mt. Mitchell, with a height of 6,684 feet. Write the height of Mt. Mitchell as an integer.

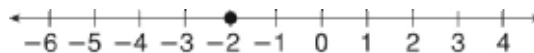
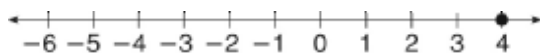
LESSON
2-2

Practice B
Adding Integers

Use a number line to find each sum.

1. $-1 + 5$

2. $4 + (-6)$



Find each sum.

3. $-51 + (-9)$

4. $27 + (-6)$

5. $1 + (-30)$

6. $15 + (-25)$

7. $50 + (-7)$

8. $-19 + (-15)$

9. $(-23) + 9$

10. $-19 + (-21)$

11. $-17 + 11$

12. $20 + (-8)$

13. $(-15) + (-7)$

14. $12 + (-14)$

Evaluate $e + f$ for the given values.

15. $e = 9, f = -24$

16. $e = -17, f = -7$

17. $e = 32, f = -19$

18. $e = -15, f = -15$

19. $e = -20, f = 20$

20. $e = -30, f = 12$

21. The temperature rose 9°F in 3 hours. If the starting temperature was -5°F , what was the final temperature?

22. Matt is playing a game. He gains 7 points, loses 10 points, gains 2 points, and then loses 8 points. What is his final score?

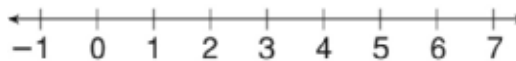
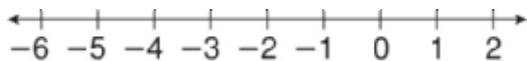
LESSON
2-3

Practice B
Subtracting Integers

Use a number line to find each difference.

1. $-2 - 3$

2. $5 - (-1)$



Find each difference.

3. $-6 - 4$

4. $-7 - (-12)$

5. $12 - 16$

6. $5 - (-19)$

7. $-18 - (-18)$

8. $23 - (-23)$

9. $-10 - (-9)$

10. $29 - (-13)$

11. $9 - 15$

12. $-12 - 14$

13. $22 - (-8)$

14. $-16 - (-11)$

Evaluate $x - y$ for each set of values.

15. $x = 14, y = -2$

16. $x = -11, y = 11$

17. $x = -8, y = -15$

18. $x = -9, y = -9$

19. $x = 9, y = -20$

20. $x = 20, y = 25$

21. The high temperature one day was -1 °F. The low temperature was -5 °F. What was the difference between the high and low temperatures for the day?

22. The temperature changed from 5 °F at 6 P.M. to -2 °F at midnight. How much did the temperature decrease?

LESSON

2-4

Practice B***Multiplying and Dividing Integers*****Find each product.**

1. $8 \cdot (-5)$

2. $-4 \cdot 7$

3. $-6 \cdot (-3)$

4. $-2 \cdot 4$

5. $4 \cdot (-9)$

6. $-9 \cdot 5$

7. $6 \cdot 8$

8. $-7 \cdot (-3)$

9. $-6 \cdot (-6)$

10. $9 \cdot (-3)$

11. $-2 \cdot (-8)$

12. $5 \cdot (-7)$

13. $10 \cdot 8$

14. $-5 \cdot 9$

15. $9 \cdot (-6)$

16. $(-4) \cdot (-11)$

Find each quotient.

17. $25 \div (-5)$

18. $-54 \div (-6)$

19. $-10 \div 5$

20. $-28 \div (-4)$

21. $-42 \div (-7)$

22. $-21 \div 0$

23. $36 \div (-6)$

24. $-81 \div (-9)$

25. $-32 \div 8$

26. $45 \div (-9)$

27. $-72 \div (-8)$

28. $50 \div 10$

29. $-42 \div 6$

30. $-72 \div (-9)$

31. $40 \div 8$

32. $56 \div 0$

33. Kim was walking down a rocky path. For 4 minutes, the elevation dropped uniformly. Altogether it dropped 8 feet. What was the change in elevation per minute for the 4 minutes?

34. As a front passed, the temperature changed steadily over 6 hours. Altogether it changed -18 degrees. What was the change in temperature per hour for the 6 hours?

LESSON

2-5

Practice B

Solving Equations Containing Integers

Solve each equation. Check your answer.

1. $n - 6 = -2$

2. $x - 8 = -11$

3. $7 = a - 5$

4. $y + 4 = 2$

5. $c + 7 = -3$

6. $0 = v + 1$

7. $8j = -16$

8. $-3k = 24$

9. $-20 = -4s$

10. $\frac{m}{-2} = -5$

11. $\frac{d}{6} = -3$

12. $\frac{r}{-7} = 4$

13. $p + 8 = -6$

14. $-15 = 5b$

15. $f - 9 = -1$

16. $\frac{n}{6} = -4$

17. $k + 10 = 3$

18. $4a = -16$

19. $-6x = -36$

20. $2 = e - 7$

21. $3 = \frac{m}{2}$

22. The temperature in Minnesota was -8°F one day. This was 12 degrees less than the temperature in Indiana on the same day. What was the temperature in Indiana?

23. Mr. Harding sold 100 shares of stock at \$14 per share. He had a loss of \$6 per share. What did Mr. Harding pay for each share of the stock?

LESSON
2-6**Practice B****Prime Factorization**

Tell whether each number is prime or composite.

1. 33

2. 41

3. 52

4. 79

5. 96

6. 121

7. 83

8. 119

Write the prime factorization of each number.

9. 57

10. 49

11. 88

12. 95

13. 105

14. 98

15. 52

16. 42

17. 68

18. 91

19. 60

20. 72

21. 56

22. 144

23. 370

24. 168

25. 124

26. 515

27. 725

28. 220

29. 450

30. 1,000

31. 1,040

32. 2,500

33. The prime factorization of a number is $3^2 \cdot 5 \cdot 11$. What is the number?

LESSON
2-7

Practice B
Greatest Common Factor

Find the greatest common factor (GCF).

- | | | |
|-----------------------------|-----------------------------|------------------------------|
| 1. 12, 15
_____ | 2. 22, 33
_____ | 3. 63, 45
_____ |
| 4. 15, 50
_____ | 5. 18, 81
_____ | 6. 18, 48
_____ |
| 7. 20, 24
_____ | 8. 14, 42, 49
_____ | 9. 3, 6, 9
_____ |
| 10. 16, 24, 30
_____ | 11. 16, 40, 88
_____ | 12. 42, 70
_____ |
| 13. 25, 125, 200
_____ | 14. 26, 39, 52
_____ | 15. 36, 100
_____ |
| 16. 35, 77
_____ | 17. 56, 84
_____ | 18. 14, 49, 56, 84
_____ |
| 19. 30, 75, 60, 90
_____ | 20. 12, 38, 40, 94
_____ | 21. 48, 66, 96, 102
_____ |

22. Volunteers are preparing identical backpacks for refugees. There are 32 maps and 24 dictionaries to use for the backpacks. What is the greatest number of backpacks they can prepare using all of the maps and dictionaries?

23. Alyssa is preparing identical fruit baskets. There are 36 oranges and 60 apples to use for the baskets. What is the greatest number of fruit baskets she can prepare using all of the oranges and apples?

LESSON
2-8

Practice B
Least Common Multiple

Find the least common multiple (LCM).

- | | | |
|----------------------------|-----------------------------|---------------------------|
| 1. 8, 10
_____ | 2. 10, 15
_____ | 3. 6, 9
_____ |
| 4. 12, 16
_____ | 5. 18, 30
_____ | 6. 5, 11
_____ |
| 7. 15, 45
_____ | 8. 7, 28
_____ | 9. 4, 14
_____ |
| 10. 3, 10, 12
_____ | 11. 9, 36, 60
_____ | 12. 5, 15
_____ |
| 13. 7, 14, 49
_____ | 14. 8, 12, 24, 96
_____ | 15. 5, 25, 30
_____ |
| 16. 5, 9, 18
_____ | 17. 4, 10, 12, 15
_____ | 18. 4, 9, 12, 18
_____ |
| 19. 4, 12, 24, 36
_____ | 20. 24, 30, 48, 60
_____ | 21. 5, 9, 15, 18
_____ |

22. Jasmine is helping her father plant trees to create a border around the back yard. Jasmine plants a tree every 25 minutes, and her father plants a tree every 15 minutes. If they started together, how long before they would finish planting a tree at the same time?
- _____
23. Two dancers are rehearsing in a studio. One dancer's routine lasts 12 minutes. The other dancer's routine lasts 15 minutes. If they start together and take no breaks between their routines, how long before they start together again?
- _____
24. Evan and Renzo are swimming laps in the pool. It takes Evan 8 minutes to complete 1 lap and Renzo 6 minutes to complete 1 lap. They start together at the tops of their lanes. In how many minutes will they be together again at the tops of their lanes?
- _____

LESSON

2-9

Practice B***Equivalent Fractions and Mixed Numbers***

Find a fraction equivalent to the given fraction.

1. $\frac{2}{9}$ _____

2. $\frac{8}{15}$ _____

3. $\frac{7}{8}$ _____

4. $\frac{16}{24}$ _____

5. $\frac{12}{20}$ _____

6. $\frac{9}{12}$ _____

Determine whether the fractions in each pair are equivalent.

7. $\frac{8}{10}$ and $\frac{12}{15}$

8. $\frac{6}{8}$ and $\frac{8}{12}$

9. $\frac{3}{9}$ and $\frac{4}{8}$

10. $\frac{7}{4}$ and $\frac{9}{5}$

11. $\frac{15}{12}$ and $\frac{20}{16}$

12. $\frac{15}{9}$ and $\frac{30}{18}$

Write each as a mixed number.

13. $\frac{21}{8}$ _____

14. $\frac{37}{4}$ _____

15. $\frac{16}{5}$ _____

16. $\frac{49}{9}$ _____

Write each as an improper fraction.

17. $8\frac{2}{3}$ _____

18. $1\frac{7}{12}$ _____

19. $25\frac{3}{4}$ _____

20. $7\frac{5}{6}$ _____

21. Maria's desk is $33\frac{3}{4}$ inches long. Write this number as an improper fraction.

22. Leon walked $\frac{5}{8}$ mile. Liz walked $\frac{10}{16}$ mile. Did they walk the same distance?

LESSON
2-10**Practice B**
Equivalent Fractions and Decimals

Write each fraction as a decimal. Round to the nearest thousandth, if necessary.

1. $\frac{2}{10}$ _____

2. $\frac{19}{20}$ _____

3. $\frac{5}{8}$ _____

4. $\frac{11}{5}$ _____

5. $\frac{19}{6}$ _____

6. $\frac{17}{4}$ _____

7. $\frac{13}{12}$ _____

8. $\frac{30}{7}$ _____

9. $\frac{7}{4}$ _____

10. $\frac{9}{20}$ _____

11. $\frac{11}{10}$ _____

12. $\frac{2}{25}$ _____

Write each decimal as a fraction in simplest form.

13. 0.85

14. 0.11

15. -0.25

16. 4.3

17. 7.75

18. 5.03

19. -1.06

20. 0.375

21. -2.65

22. -5.6

23. 1.12

24. 0.005

Write each answer as a decimal rounded to the nearest thousandth.

25. In the 1998 Winter Olympics, a total of 205 medals were awarded. The United States won 13 medals. What portion of the medals did the United States win?

26. On a test, Hailey answered 64 out of 75 question correctly. What portion of her answers was correct?

LESSON**2-11****Practice B****Comparing and Ordering Rational Numbers**

Compare the fractions. Write < or >.

1. $-\frac{7}{8}$ _____ $-\frac{5}{8}$

2. $\frac{3}{10}$ _____ $\frac{3}{8}$

3. $4\frac{7}{12}$ _____ $5\frac{5}{12}$

4. $\frac{35}{40}$ _____ $\frac{22}{50}$

5. $-\frac{1}{2}$ _____ $\frac{3}{4}$

6. $-3\frac{7}{8}$ _____ $-3\frac{9}{10}$

Compare the decimals. Write < or >.

7. -0.531 _____ -0.513

8. 0.73 _____ 0.073

9. $3.\overline{59}$ _____ 3.599

10. 0.121 _____ 0.12

11. -7.56 _____ -5.76

12. -0.099 _____ -0.097

Order the numbers from least to greatest.

13. $\frac{4}{9}$, 0.4, 0.45

14. 1.7, 1.65, $1\frac{2}{3}$

15. 3.18, $3\frac{1}{8}$, 3.80

16. -5 , -5.25 , $-5\frac{2}{5}$

17. $-6\frac{3}{4}$, 6.34, -6.4

18. $\frac{11}{12}$, $\frac{8}{9}$, 0.91

19. $-\frac{3}{5}$, $-\frac{5}{7}$, -0.65

20. 0.3, 0.345, $\frac{1}{3}$

21. -0.75 , $\frac{7}{8}$, $-\frac{5}{8}$

22. A ream of paper contains 500 sheets of paper. Norm has 373 sheets of paper left from a ream. Express the portion of a ream Norm has as a fraction and as a decimal.

23. The density of Venus, compared to Earth having a density of 1, is 0.943. The density of Mercury is 0.983, compared to the density of Earth. Which planet has a greater density, Venus or Mercury?
