Name _____ Date _____

Chapter 1 Quiz

For use after Section 1.5

Tell whether the value of the expression is *positive* or *negative* without evaluating.

1. $-36 \div 4$
2. $-5 \bullet 16$
3. $72 \div 8$
4. $-13(-9)$

Evaluate the expression.

5. $-8 \bullet 5$
6. $-3(-4)$
7. $9(-7)$
8. $-18 \div 6$
9. $\frac{48}{-12}$
10. $27 \div (-3)$

11. You lose 2 points every time you forget to write your name on a test. You have forgotten to write your name 4 times. What integer represents your change in points from forgetting to write your name?

12. The cost for a movie ticket is \$7. The cost is reduced to \$5 for groups of 10 or more. How many people must be in a group for them to save a total of \$30?

13. You are swimming each 25-yard length of a swimming pool 3 seconds faster than your personal best. What integer represents your change in time of your personal best after 200 yards?

14. Pete owes his brother \$35 from five weeks of borrowing money.
    a. What is the mean amount Pete borrowed from his brother each week?
    b. If Pete continues to borrow money, how much money will he owe after three more weeks?

15. Seven days ago, the gas tank on Rosa's car was filled with 20 gallons of gasoline. Today there are 6 gallons of gasoline.
    a. What integer represents the change of gasoline in the past seven days?
    b. What is the mean change in gasoline in gallons per day?
    c. What is the fuel efficiency, in miles per gallon, of Rosa's car if she drove 490 miles in the past seven days?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. a. _____
    b. _____
15. a. _____
    b. _____
    c. _____

Name

Name _____ Date _____

Chapter 2 Quiz

For use after Section 2.2

Write the rational number as a decimal.

1. $-\frac{9}{10}$

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

Write the decimal as a fraction or mixed number in simplest form.

3. -0.65

4. -3.75

Complete the statement using <, >, or =.

5. $\frac{14}{8}$ ___ $1\frac{3}{4}$

6. -5.65 ___ -5.6

7. $-6\frac{7}{8}$ ___ $-6.\overline{8}$

8. $-3\frac{11}{12}$ ___ $-3\frac{14}{15}$

Add. Write fractions in simplest form.

9. $-8\frac{3}{8} + 6\frac{1}{4}$

10. $-2\frac{3}{4} + \left(-1\frac{1}{3}\right)$

11. $-7.3 + (-3.6)$

12. $8.36 + (-4.825)$

13. The coldest temperature on record in Town A is $-3.33°$F.

    The coldest temperature on record in Town B is $-3\frac{2}{5}°$F.

    Which town has the colder temperature?

14. The table shows four transactions (in dollars) for a bank account. Positive number represent *deposits*, and negative numbers represent *withdrawals*. The balance before the transactions is \$75.50. What is the balance after the transactions?

Transactions	
Date	**Amount**
11/4	60.68
11/4	−25.16
11/7	−82.05
11/11	55.95

Answers

1. _____
2. _____
3. _____
4. _____
5. See left.
6. See left.
7. See left.
8. See left.
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____

Name _____ Date _____

Chapter 2 Quiz

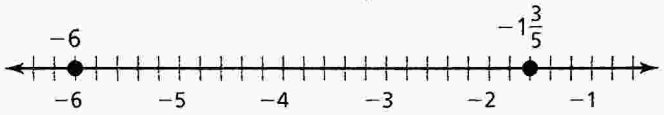
For use after Section 2.4

Subtract. Write fractions in simplest form.

1. $6.3 - 9.5$
2. $4.2 - (-2.6)$
3. $-5\frac{1}{2} - 2\frac{1}{3}$
4. $-3\frac{4}{9} - \left(-2\frac{1}{18}\right)$

Find the distance between the two numbers on the number line.

5. 

6. 

Multiply or divide. Write fractions in simplest form.

7. $4.5(-6.2)$
8. $-3\frac{3}{5} \div 2\frac{7}{10}$
9. $-4\frac{1}{6} \cdot \left(-3\frac{3}{5}\right)$
10. $-2.7 \div 0.9$

Evaluate.

11. $4.5 - 11.2 \div 2^3$
12. $-2\frac{3}{5} \times \frac{2}{3} - 1\frac{4}{5}$

13. A bottle contains 16.9 fluid ounces of water. After you take a sip, the bottle is $\frac{9}{10}$ full. How many fluid ounces is your sip?

14. Your class is holding a fundraiser for a local charity. After the first week, your class raised $\frac{1}{8}$ of your goal. After the second week, your class raised a total of $\frac{3}{5}$ of your goal. What fraction of the goal was raised during the second week of the fundraiser?

15. Stock A changed by $-\$5.70$ during the day. Stock B changed by $2\frac{1}{3}$ times that amount. How much did Stock B change during the day?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Name _____ Date _____

Chapter 3 Quiz

For use after Section 3.2

Identify the terms and like terms in the expression.

1. $10x + 5 + 3x + 1$
2. $-2n + 7n - r + 10r$
3. $-12h^2 - 4 + 9 - 3h^2$
4. $1.4c + 11.4 - 2c - 7.3c$

Simplify the expression.

5. $8v - 15v$
6. $7d + 5 - 4d$
7. $12x + 9 - 3x - 4$
8. $3(x - 4) + 5x$

Find the sum or difference.

9. $(3x - 5) + (-4x + 1)$
10. $6(-2.1k - 2) + (7k + 5)$
11. $(2m + 7) - (3 - 4m)$
12. $\frac{2}{3}(6c + 4) - (8c - 5)$

Factor out the coefficient of the variable.

13. $\frac{1}{2}d + 6$
14. $-3.6z - 10.8$

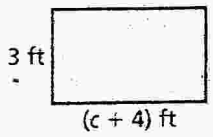
15. You and your friends order food from a menu where each item costs the same amount. Write an expression in simplest form that represents the total amount of money the order will cost.

GUEST CHECK

240796

4	Soda
1	Milkshake
5	Cheeseburger
2	Chicken Fingers
4	French Fries

16. Write an expression in simplest form for the area of the rectangle.



17. Eastside Bowling charges $2.25 for shoes and $3.00 per game. Westside Bowling charges $1.75 for shoes and $2.50 per game. Write an expression in simplest form that represents how much more Eastside Bowling charges than Westside Bowling.

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

Name _____ Date _____

Chapter 3

Quiz

For use after Section 3.5

Solve the equation. Check your solution.

1. $b - 6 = -11$

2. $8 = q + 15$

3. $x + 4\frac{1}{3} = -2\frac{5}{6}$

4. $-2.5 + w = 3.7$

5. $\frac{n}{-5} = 7$

6. $-2p = \frac{4}{11}$

7. $17 = -7z + 3$

8. $\frac{a}{6} - \frac{1}{2} = \frac{1}{3}$

Write the word sentence as an equation. Then solve.

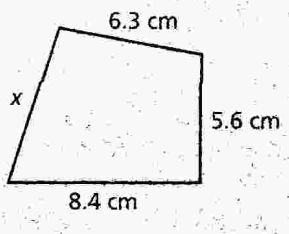
9. 3 less than a number h is -12.

10. The sum of a number b and 7.5 is 4.8.

11. The product of $-\frac{3}{4}$ and a number x is -27.

12. The quotient of a number m and -3.2 is 15.

13. The perimeter of the polygon is 27.4 centimeters. Write and solve an equation to find the unknown side length.



14. The bottom floor of a parking garage has an elevation of -36 feet. The top floor is 124 feet higher. What is the elevation of the top floor?

15. Store A sells jeans for $\frac{7}{8}$ of the price at Store B. Store A sells jeans for \$35. Write and solve an equation to find how much you save by buying jeans at Store A.

16. You are biking to your friend's house to do math homework. Halfway there, you realize you forgot your textbook, so you turn around. After biking 0.25 mile, you are one mile from your house. What is the distance between your house and your friend's house?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

Name _____ Date _____

Chapter 4 Quiz

For use after Section 4.4

Solve the inequality. Graph the solution.

1. $4c < 28$

2. $\frac{x}{-2} > 4$

3. $-15y \leq -45$

4. $-1.2b \geq 4.8$

Write the word sentence as an inequality. Then solve the inequality.

5. The product of a number and -5 is at least 35.

6. A number divided by 3 is no more than 12.

Solve the inequality. Graph the solution.

7. $3t - 1 < 8$

8. $1.6w + 1.7 \geq 4.9$

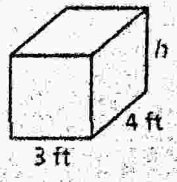
9. $-\frac{k}{4} - 5 \leq -2$

10. $\frac{x}{3} + \frac{2}{3} > \frac{1}{6}$

11. You need to score at least 1500 points on your new video game to obtain the high score. You get 300 points after completing each level. Write and solve an inequality to find the number of levels you must beat in order to obtain the high score.

12. A baseball team has 30 players. They need to make cuts so that there are at most 25 baseball players on the team. Write and solve an inequality to find the number of players that must be cut from the team.

13. The volume of the rectangular prism must be at least 36 cubic feet. Write and solve an inequality that represents the value of h.



Answers

1. _____
   See left.
2. _____
   See left.
3. _____
   See left.
4. _____
   See left.
5. _____
   _____
6. _____
   _____
7. _____
   See left.
8. _____
   See left.
9. _____
   See left.
10. _____
    See left.
11. _____
    _____
12. _____
    _____
13. _____
    _____

Name _____ Date _____

Chapter 5 Quiz

For use after Section 5.3

Write the ratio as a fraction in simplest form.

1. 24 messages : 10 messages

2. 5 meters to 20 meters

Use the ratio table to find the unit rate with the specified units.

3. miles per gallon

Gallons	0	2	4	6
Miles	0	31	62	93

4. cost per box

Boxes	3	6	9
Cost	$3.60	$7.20	$10.80

Tell whether the ratios form a proportion.

5. $\frac{4}{7}, \frac{24}{35}$

6. $\frac{11}{12}, \frac{33}{36}$

Tell whether the two rates form a proportion.

7. 25 cars in 5 days; 60 cars in 12 days

8. 14 books in 2 boxes; 20 books in 3 boxes

Use the table to write a proportion.

9.

	Cashews	Peanuts
Dollars	12	16
Pounds	3	p

10.

	Monday	Tuesday
Emails	e	30
Hours	8	10

Solve the proportion.

11. $\frac{x}{10} = \frac{4}{5}$

12. $\frac{8}{9} = \frac{p}{81}$

13. The number of pictures your printer can print are shown in the table. Find the rate in pictures per minute.

Minutes	2	4	6	8
Pictures	16	32	48	64

14. On Monday, you swim 12 laps in 30 minutes. On Tuesday, you swim 15 laps in 45 minutes. Are these rates proportional? Explain.

15. A chemical compound requires 8 ounces of Chemical A and 12 ounces of Chemical B. A mixture contains 24 ounces of Chemical A and 30 ounces of Chemical B. How can you fix the mixture to make the chemical compound?

16. In an animal shelter, the ratio of dogs to cats is 5 to 3. There are 25 dogs. Write and solve a proportion to find the number c of cats.

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

Name _____ Date _____

Chapter 6

Quiz

For use after Section 6.7

Identify the percent of change as an *increase* or a *decrease*. Then find the percent of change. Round to the nearest tenth of a percent, if necessary.

1. 120 pounds to 180 pounds
2. 10 feet to 8 feet
3. 400 meters to 350 meters
4. 12 gallons to 36 gallons
5. You estimate that a small restaurant will serve 430 customers the first week it is open. The actual number of customers the first week is 400. Find the percent error.

Find the original price, discount, sale price, or selling price.

6. Original price: $130
   Discount: 60%
   Sale price: ?
7. Original price: $32
   Discount: ?
   Sale price: $8
8. Original price: ?
   Discount: 20%
   Sale price: $14.40
9. Cost to store: $45
   Markup: 35%
   Selling price: ?

An account earns simple interest. Find the interest earned, principal, interest rate, or time.

10. Interest earned: ?
    Principal: $1450
    Interest rate: 9%
    Time: 5 years
11. Interest earned: $10
    Principal: $250
    Interest rate: 4%
    Time: ?
12. Interest earned: $40
    Principal: $400
    Interest rate: ?
    Time: 2 years
13. Interest earned: $45
    Principal: ?
    Interest rate: 3%
    Time: 2 years
14. Store A sells a watch for $50 and offers a 5% discount. Store B sells the same watch for $60 and offers a 20% discount. From which store should you buy?
15. A store sells a television for $1000. Customers can choose to receive a 10% discount and pay it off with a loan at a simple interest rate of 4%, or they can choose to pay the full price and pay it off in 3 years with no interest. If the customer plans to pay it off in 3 years, which option is better?
16. A store offers a loan for $900 to buy a computer. The terms of the loan are for 9% simple interest and equal monthly payments for three years. What is the monthly payment?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____