

Add or subtract.

$$\begin{array}{r} 1. \quad 3 \\ 7 \\ + 8 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 2. \quad 3 \\ 3 \\ + 3 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 3. \quad 2 \\ 8 \\ + 3 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 4. \quad 9 \\ 1 \\ + 7 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 5. \quad 20 \\ - 8 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 6. \quad 39 \\ - 10 \\ \hline 29 \end{array}$$

$$\begin{array}{r} 7. \quad 45 \\ - 9 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 8. \quad 80 \\ - 9 \\ \hline 71 \end{array}$$

$$\begin{array}{r} 9. \quad 100 \\ - 45 \\ \hline 55 \end{array}$$

$$\begin{array}{r} 10. \quad 732 \\ + 149 \\ \hline 881 \end{array}$$

$$\begin{array}{r} 11. \quad 4,200 \\ - 1,341 \\ \hline 2,859 \end{array}$$

$$\begin{array}{r} 12. \quad 9,851 \\ - 3,480 \\ \hline 6,371 \end{array}$$

$$13. \quad 8 + \underline{7} = 15$$

$$14. \quad 7 + \underline{6} = 13$$

$$15. \quad 3 + \underline{9} = 12$$

$$16. \quad 30 - \underline{5} = 25$$

$$17. \quad 35 - \underline{15} = 20$$

$$18. \quad 30 - \underline{8} = 22$$

$$19. \quad 7 + 8 - 5 + 6 = \underline{16}$$

$$20. \quad 9 + 3 - 0 + 4 = \underline{16}$$

Solve.

$$\begin{array}{r} 1. \quad 23 \\ 47 \\ + 15 \\ \hline 85 \end{array}$$

$$\begin{array}{r} 2. \quad 71 \\ 69 \\ + 34 \\ \hline 174 \end{array}$$

$$\begin{array}{r} 3. \quad 84 \\ 45 \\ + 61 \\ \hline 190 \end{array}$$

$$\begin{array}{r} 4. \quad 999 \\ - 374 \\ \hline 625 \end{array}$$

$$\begin{array}{r} 5. \quad 500 \\ - 389 \\ \hline 111 \end{array}$$

$$\begin{array}{r} 6. \quad 600 \\ - 421 \\ \hline 179 \end{array}$$

$$7. 54 - \underline{14} = 40$$

$$8. 36 - \underline{6} = 30$$

$$9. 49 - \underline{19} = 30$$

$$10. 27 + \underline{23} = 50$$

$$11. 73 + \underline{7} = 80$$

$$12. 26 + \underline{14} = 40$$

$$13. 8 \times \underline{3} = 24$$

$$14. 7 \times \underline{6} = 42$$

$$15. 6 \times \underline{8} = 48$$

$$\begin{array}{r} 16. \quad 89 \\ + 15 \\ \hline 104 \end{array}$$

$$\begin{array}{r} 17. \quad 50 \\ - 25 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 18. \quad 300 \\ - 72 \\ \hline 228 \end{array}$$

$$\begin{array}{r} 19. \quad 1,457 \\ + 2,394 \\ \hline 3,851 \end{array}$$

$$\begin{array}{r} 20. \quad 7,000 \\ - 1,329 \\ \hline 5,671 \end{array}$$

Write the answer using **387,406**.

1. The value of 8 in standard form

**80,000**

2. The digit in the Hundred Thousands place

**3**

3. The value of 4 in standard form

**400**

4. Round to the greatest place.

**400,000**

Write the numbers from *least to greatest*.

5.

42,389

41,857

42,399

**41,857**

**42,389**

**42,399**

6.

819,234

89,973

809,583

819,233

**89,973**

**809,583**

**819,233**

**819,234**

Write a comparison sentence using **>** or **<**.

7. 63,271,809 **>** 63,270,899

8. 403,241,589 **>** 49,864,101

9. 19 million **<** 9 billion

Complete the equation.

10.  $4 + 4 + 4 = \underline{3} \times 4$

11.  $8 + 8 = \underline{2} \times 8$

12.  $9 + 9 + 9 + 9 = \underline{4} \times 9$

13.  $7 + 7 = 2 \times \underline{7}$

14.  $6 + 6 + 6 + 6 = 4 \times \underline{6}$

15.  $5 + 5 + 5 = \underline{3} \times 5$

16.  $5 \times 7 = \underline{35}$

17.  $4 \times 8 = \underline{32}$

18.  $9 \times 3 = \underline{27}$

19.  $6 \times 10 = \underline{60}$

20.  $2 \times 9 = \underline{18}$

**Solve.**

Calvary Christian School performed *Winnie-the-Pooh* in the Civic Center Auditorium.

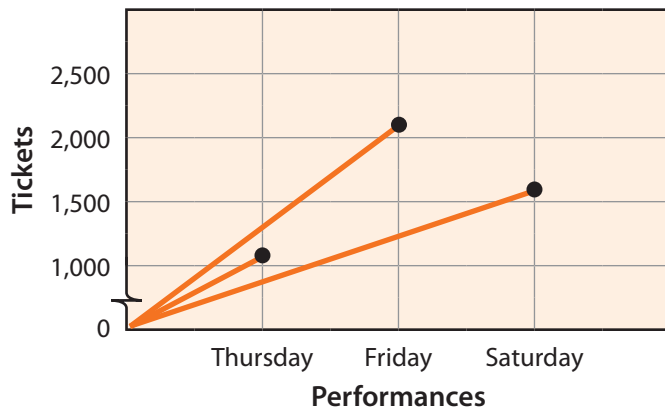
1. Addison bought tickets for the play. His parents, sister, and cousin were going with him to the performance. In addition, he got tickets for the neighbors. He purchased eleven tickets. How many tickets did he purchase for the neighbors?

$$11 - 5 = 6 \text{ tickets}$$

2. The ticket office sold 1,243 tickets for the Thursday night performance of the play, 2,390 for the Friday night performance, and 1,596 for the Saturday afternoon performance. How many tickets were sold for the play?

$$1,243 + 2,390 + 1,596 = 5,229 \text{ tickets}$$

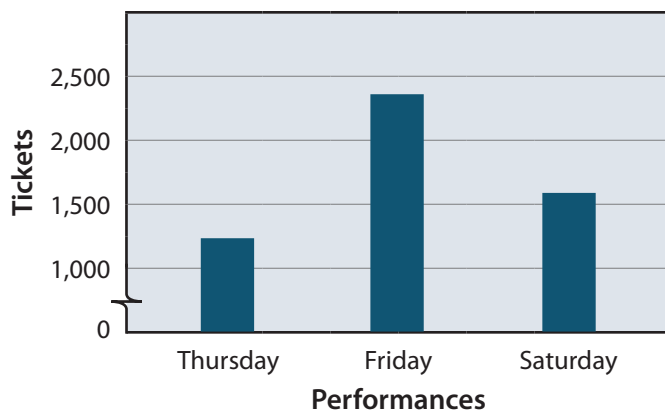
**Tickets Sold for  
*Winnie-the-Pooh***



3. Which graph correctly compares the number of tickets sold for each performance?

**the bar graph**

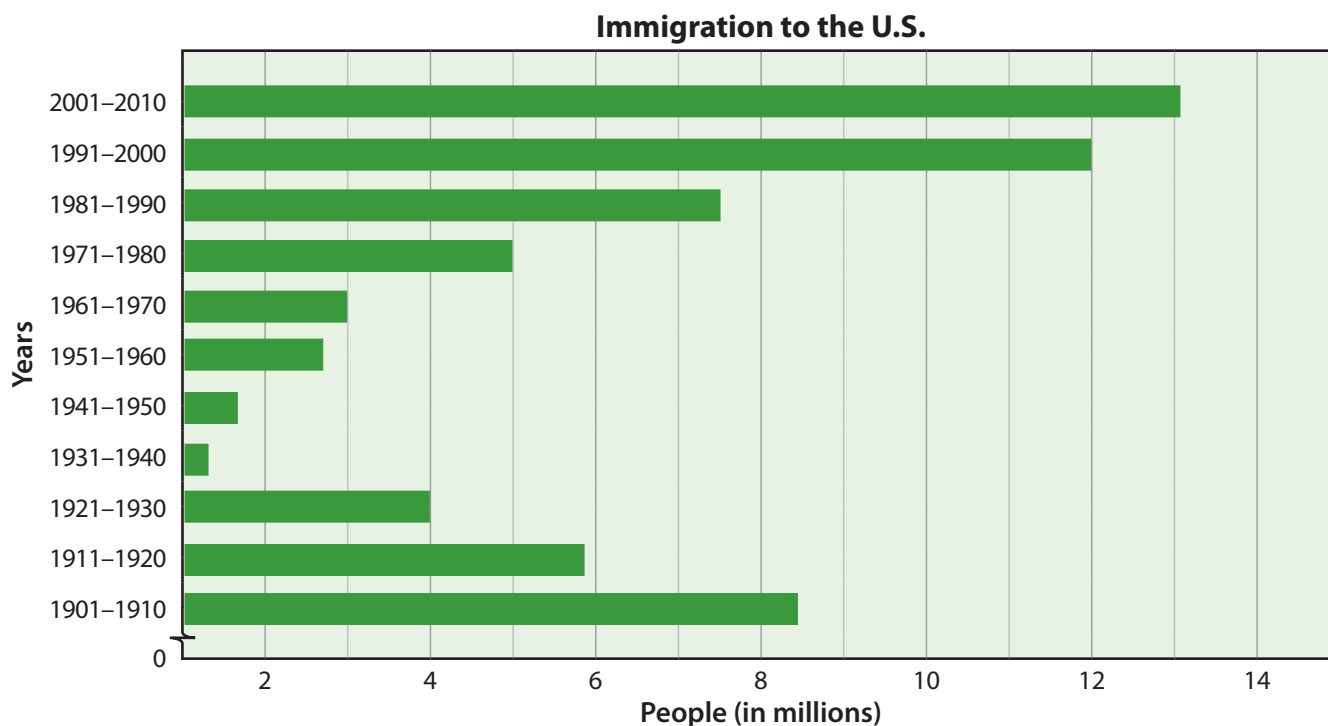
**Tickets Sold for  
*Winnie-the-Pooh***



4. The main floor of the auditorium can seat 1,500 people. The balcony is used when more seats are needed. Which performances would require seating in the balcony?

**Friday and Saturday performances**

Use the data from the graph to find the answer.



1. What type of graph is pictured?

**bar graph**

2. In what year does the graph begin?

**1901**

3. Write in word form the number of immigrants that came to the U.S. from 1991 to 2000.

**twelve million**

4. In which years did the smallest number of immigrants come to the U.S.?

**1931–1940**

5. In which years did four million immigrants come to the U.S.?

**1921–1930**

6. About how many million immigrants came to the U.S. from 2001 to 2010?

**13 million**

Complete the fact.

7.  $24 \div 6 = \underline{4}$

8.  $56 \div 7 = \underline{8}$

9.  $27 \div 9 = \underline{3}$

10.  $50 \div 5 = \underline{10}$

11.  $21 \div 7 = \underline{3}$

12.  $45 \div 5 = \underline{9}$

13.  $32 \div 8 = \underline{4}$

14.  $42 \div 6 = \underline{7}$

15.  $\begin{array}{r} \boxed{2} \\ 3 \overline{) 6} \end{array}$

16.  $\begin{array}{r} \boxed{7} \overline{) 28} \end{array}$

17.  $\begin{array}{r} \boxed{9} \\ 4 \overline{) 36} \end{array}$

18.  $\begin{array}{r} \boxed{8} \\ 6 \overline{) 48} \end{array}$

19.  $\begin{array}{r} \boxed{5} \overline{) 35} \end{array}$

20.  $\begin{array}{r} \boxed{2} \\ 9 \overline{) 18} \end{array}$

Write the value of the given digit in **standard form** using 925,018,703,460.

1. 8 8,000,000

2. 6 60

3. 4 400

4. 7 700,000

5. 2 20,000,000,000

6. 9 900,000,000,000

Write the digit for the given place.

149.735
---------

7. hundredths 3

8. hundreds 1

9. tenths 7

10. tens 4

Write a comparison sentence using **>**, **<**, or **=**.

11. 427 **<** 487

12. 6,906 **<** 6,990

13. 0.2 **>** 0.15

14. 0.45 **<** 0.540

15. 0.75 **=** 0.750

16. 0.999 **<** 1.012

Complete the fact.

17.  $63 \div 7 = \underline{9}$

18.  $24 \div 8 = \underline{3}$

19.  $42 \div 7 = \underline{6}$

20.  $18 \div 3 = \underline{6}$

Solve.

$$\begin{array}{r} 1. \quad 7.4 \\ + 2.5 \\ \hline 9.9 \end{array}$$

$$\begin{array}{r} 2. \quad 8.2 \\ - 3.5 \\ \hline 4.7 \end{array}$$

$$\begin{array}{r} 3. \quad 62.3 \\ - 19.4 \\ \hline 42.9 \end{array}$$

$$\begin{array}{r} 4. \quad \$127.39 \\ + \$48.80 \\ \hline \$176.19 \end{array}$$

$$5. \$4.50 + \$3.75 = \underline{\$8.25}$$

$$6. \$5.00 - \$2.0 = \underline{\$2.92}$$

$$7. 1.327 + 2.5 = \underline{3.827}$$

Write the numbers from *least to greatest*.

$$8. \quad \boxed{17 \quad 0.17 \quad 0.0017 \quad 1.7} \quad \underline{0.0017} \quad \underline{0.17} \quad \underline{1.7} \quad \underline{17}$$

$$9. \quad \boxed{64 \quad 6.4 \quad 0.64 \quad 0.006} \quad \underline{0.006} \quad \underline{0.64} \quad \underline{6.4} \quad \underline{64}$$

$$10. \quad \boxed{143.8 \quad 14.38 \quad 4.389 \quad 0.43} \quad \underline{0.43} \quad \underline{4.389} \quad \underline{14.38} \quad \underline{143.8}$$

$$11. \quad \boxed{8.3275 \quad 83,275 \quad 832.75 \quad 8,327.5} \quad \underline{8.3275} \quad \underline{832.75} \quad \underline{8,327.5} \quad \underline{83,275}$$

$$12. \quad \boxed{410.298 \quad 410,698 \quad 420,698 \quad 41.0698} \quad \underline{41.0698} \quad \underline{410.298} \quad \underline{410,698} \quad \underline{420,698}$$

$$13. \quad \boxed{52.01 \quad 5.201 \quad 5,201 \quad 520.1} \quad \underline{5.201} \quad \underline{52.01} \quad \underline{520.1} \quad \underline{5,201}$$

Complete the fact.

$$14. \quad \boxed{8} \overline{) 64}^8$$

$$15. \quad 9 \overline{) \boxed{81}}^9$$

$$16. \quad \boxed{9} \overline{) 54}^6$$

$$17. \quad \boxed{7} \overline{) 42}^6$$

$$18. \quad 9 \overline{) \boxed{45}}^5$$

$$19. \quad \boxed{8} \overline{) 56}^7$$

Write an equation for the part-whole model. Solve. *Process to solve may vary.*

1.

$n$			
25	25	25	25

$$4 \times 25 = n$$

$$n = 100$$

2.

15		
$n$	5	5

$$15 - 10 = n$$

$$n = 5$$

3.

500	
125	$n$

$$500 - 125 = n$$

$$n = 375$$

Round to the greatest place to estimate the sum or difference. Solve.

4.  $73,295 + 29,863$

$$70,000 + 30,000 = 100,000$$

$$103,158$$

5.  $8,732 - 1,953$

$$9,000 - 2,000 = 7,000$$

$$6,779$$

6.  $25.9 - 14.1$

$$30 - 10 = 20$$

$$11.8$$

Solve.

7.  $14 + 8 + 6 = \underline{28}$

8.  $21 + 9 + 32 = \underline{62}$

9.  $18 + 22 + 45 = \underline{85}$

10.  $(15 + 5) - 8 = \underline{12}$

11.  $(4 + 16) + 105 = \underline{125}$

12.  $1.2 + (13 + 7) = \underline{21.2}$

13. 
$$\begin{array}{r} 372,541 \\ + 895,030 \\ \hline 1,267,571 \end{array}$$

14. 
$$\begin{array}{r} 43,200 \\ - 21,143 \\ \hline 22,057 \end{array}$$

15. 
$$\begin{array}{r} 93,457 \\ + 23,811 \\ \hline 117,268 \end{array}$$

16. 
$$\begin{array}{r} 40,032 \\ - 21,450 \\ \hline 18,582 \end{array}$$

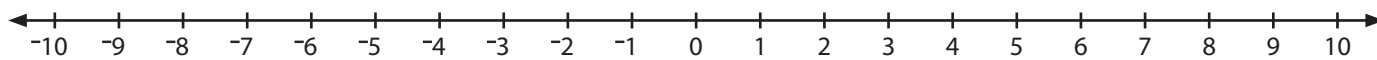
Use an addition property to complete the equation.

17.  $(5 + 3) + 2 = 5 + (3 + \underline{2})$

18.  $298 = \underline{0} + 298$

19.  $457 + 39 = \underline{39} + 457$





Write a comparison sentence using  $>$  or  $<$ .

1.  $3 > -3$

4.  $-2 < 1$

2.  $-8 < 0$

5.  $-10 < 1$

3.  $1 < 7$

6.  $-8 > -10$

Use the number line to find the answer.

7.  $-3 + -1 = -4$

10.  $10 + -3 = 7$

8.  $4 + -7 = -3$

11.  $-8 + 9 = 1$

9.  $7 + -10 = -3$

12.  $3 + 6 = 9$

Write the numbers from *least* to *greatest*.

13. 

307.968	370,968	307,931	307,969
---------	---------	---------	---------

  
307.968   307,931   307,969   370,968

14. 

24.79	2.479	247.9	2,479
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2.479   24.79   247.9   2,479

Complete the fact.

15.  $\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$

16.  $\begin{array}{r} 7 \\ \times 6 \\ \hline 42 \end{array}$

17.  $\begin{array}{r} 5 \\ \times 4 \\ \hline 20 \end{array}$

18.  $\begin{array}{r} 9 \\ 5 \overline{)45} \end{array}$

19.  $\begin{array}{r} 8 \\ 4 \overline{)32} \end{array}$

20.  $\begin{array}{r} 5 \\ 6 \overline{)30} \end{array}$

Use the number **281,503,764,900** to find the answer.

1. Name the greatest place.

**Hundred Billions**

2. Write the value of the 5 in standard form.

**500,000,000**

3. Round to the greatest place.

**300,000,000,000**

4. What digit is in the Hundred Thousands place?

**7**

5. What digit is in the One Billions place?

**1**

6. What is the value of 6 in standard form?

**60,000**

Write a comparison sentence using **>** or **<**.

7. 2,473 **<** 2,479

8. 34.95 **>** 3.495

9. 0.34 **<** 0.345

10. 309,276,501 **<** 309,276,510

11.  $400,000,000,000 + 10,000,000,000 + 9,000,000,000$  **>** forty-three billion, two hundred five thousand, six hundred twenty-seven

Round to the greatest place.

12. 832,763

**800,000**

13. 491,076,305

**500,000,000**

14. 75,860

**80,000**

15. 3.9

**4**

16. 2.15

**2**

17. 0.89

**0.9**

Round the addends to the greatest place to estimate the sum.

1.  $27,241,560 + 31,497,301$

$30,000,000 + 30,000,000 = 60,000,000$

2.  $89,304 + 120,745$

$90,000 + 100,000 = 190,000$

3.  $39.68 + 2.09$

$40 + 2 = 42$

4.  $0.94 + 4.5$

$0.9 + 5 = 5.9$

Add.

5.  $249,683 + 504,391 =$   $754,074$

6.  $83.45 + 21.3 =$   $104.75$

7.  $\$1.59 + \$4.83 =$   $\$6.42$

8.  $94,371 + 413,820 =$   $508,191$

9.  $1.89 + 12.3 =$   $14.19$

10.  $\$76.13 + \$123.09 =$   $\$199.22$

11. 
$$\begin{array}{r} 346,143 \\ + 204,129 \\ \hline 550,272 \end{array}$$

12. 
$$\begin{array}{r} \$75.32 \\ + \$25.91 \\ \hline \$101.23 \end{array}$$

13. 
$$\begin{array}{r} 2.570 \\ + 1.039 \\ \hline 3.609 \end{array}$$

14. 
$$\begin{array}{r} 1,437 \\ 2,891 \\ + 5,040 \\ \hline 9,368 \end{array}$$

15.  $(3 + 4) + 20 =$   $27$

16.  $9 + (3 + 7) =$   $19$

17.  $(8 + 8) + 8 =$   $24$

Solve.

1.  $341,720 - 190,813 = \underline{150,907}$

2.  $12.09 - 4.2 = \underline{7.89}$

3.  $\$25.00 - \$1.45 = \underline{\$23.55}$

$$\begin{array}{r} 4. \quad \$3.45 \\ - \$1.92 \\ \hline \$1.53 \end{array}$$

$$\begin{array}{r} 5. \quad 728,341 \\ - 32,906 \\ \hline 695,435 \end{array}$$

$$\begin{array}{r} 6. \quad 29,500 \\ - 1,241 \\ \hline 28,259 \end{array}$$

$$\begin{array}{r} 7. \quad 8,000 \\ - 2,315 \\ \hline 5,685 \end{array}$$

Solve. Write a related addition equation. *Order of addends may vary.*

8.  $12 - 8 = \underline{4}$

$\underline{4 + 8 = 12}$

9.  $15 - 9 = \underline{6}$

$\underline{6 + 9 = 15}$

10.  $13 - 7 = \underline{6}$

$\underline{6 + 7 = 13}$

11.  $14 - 7 = \underline{7}$

$\underline{7 + 7 = 14}$

12.  $32 - 12 = \underline{20}$

$\underline{20 + 12 = 32}$

13.  $100 - 98 = \underline{2}$

$\underline{2 + 98 = 100}$

14.  $50 - 25 = \underline{25}$

$\underline{25 + 25 = 50}$

15.  $75 - 50 = \underline{25}$

$\underline{25 + 50 = 75}$

Round the numbers to the greatest place to estimate the difference.

16.  $39,407 - 25,394$

$\underline{40 - 30 = 10}$

17.  $\$29.54 - \$19.85$

$\underline{\$30 - \$20 = \$10}$

Write the value in **standard form**.

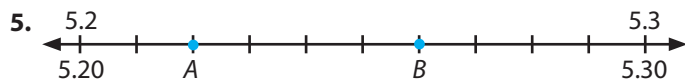
1.  $\frac{347}{1,000} = \underline{0.347}$

2.  $7 + 0.3 + 0.9 = \underline{8.2}$

3.  $(3 \times 1) + (2 \times 0.1) + (6 \times 0.01) = \underline{3.26}$

4. thirty-four hundredths =  $\underline{0.34}$

Write the decimals represented by point A and point B on the number line.



A:  $\underline{5.22}$  B:  $\underline{5.26}$

Write the value of 7 in **word form**.

6. 734.2  $\underline{\text{seven hundred}}$

7. 6.07  $\underline{\text{seven hundredths}}$

8. 0.704  $\underline{\text{seven tenths}}$

9. 8.917  $\underline{\text{seven thousandths}}$

Write the numbers from *least to greatest*.

10. 

107.5	1.075	10.75	0.1075
-------	-------	-------	--------

  
 $\underline{0.1075}$     $\underline{1.075}$     $\underline{10.75}$     $\underline{107.5}$

11. 

2.4	2.53	2.45	2.451
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 $\underline{2.4}$     $\underline{2.45}$     $\underline{2.451}$     $\underline{2.53}$

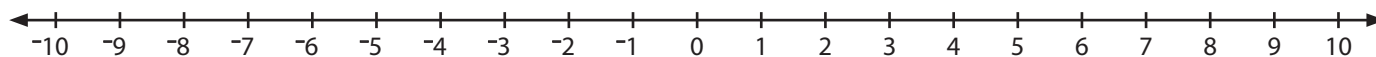
Round to the greatest place.

12. 2.45  $\underline{2}$

13. 3.89  $\underline{4}$

14. 28.01  $\underline{30}$

15. 0.39  $\underline{0.4}$



Write a comparison sentence using  $>$  or  $<$ .

1.  $0 > -1$

2.  $1 > -5$

3.  $-3 < 3$

4.  $7 > -10$

Use the number line to find the sum.

5.  $-3 + -5 = -8$

6.  $4 + -7 = -3$

7.  $-8 + 3 = -5$

8.  $-8 + -2 = -10$

Draw a number line to show the given number and its opposite.



Solve.

12. 
$$\begin{array}{r} 8 \\ \times 7 \\ \hline 56 \end{array}$$

13. 
$$\begin{array}{r} 9 \\ \times 4 \\ \hline 36 \end{array}$$

14. 
$$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$$

15. 
$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

16. 
$$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$$

17.  $9 \times 8 = 72$

18.  $7 \times 6 = 42$

19.  $6 \times 9 = 54$

20.  $8 \times 5 = 40$

Use the data from the stem-and-leaf plot to find the answer.

Mrs. Barbrow's sixth-grade class practiced curl-ups for the Presidential Physical Fitness Test. Mrs. Barbrow recorded the number of curl-ups on a stem-and-leaf plot.

1. According to the key what does 3|5 represent?

**35 curl-ups**

2. What was the range, the difference between the lowest and highest number of curl-ups, that was plotted?

**60 - 29 = 31**

3. How long did each student have to do the curl-ups?

**1 minute**

4. Were the most curl-ups recorded in the 30s, 40s, or 50s?

**40s**

5. What number of curl-ups was recorded by the most students?

**48**

6. How many students completed 55 curl-ups?

**2**

7. How many students completed only 32 curl-ups?

**0**

**Number of Curl-ups per Minute**

Stem	Leaf
2	9 9
3	5 6 9 9 9
4	0 1 1 1 2 3 5 5 7 8 8 8 8
5	2 5 5 7
6	0

**Key** 3|5 = 35 curl-ups



Write a division equation for the phrase. Solve.

1. 35 pages divided among 5 students

$$35 \div 5 = 7$$

2. 20 cookies given to 10 children

$$20 \div 10 = 2$$

3. 32 stickers for 4 girls

$$32 \div 4 = 8$$

Write the quotient.

4.  $4 \overline{)20}$  <sup>5</sup>

5.  $6 \overline{)36}$  <sup>6</sup>

6.  $9 \overline{)45}$  <sup>5</sup>

7.  $7 \overline{)49}$  <sup>7</sup>

8.  $3 \overline{)24}$  <sup>8</sup>

9.  $\frac{15}{3} =$  <sup>5</sup>

10.  $\frac{18}{9} =$  <sup>2</sup>

11.  $\frac{16}{4} =$  <sup>4</sup>

12.  $\frac{21}{7} =$  <sup>3</sup>

13.  $\frac{18}{2} =$  <sup>9</sup>

Write a related multiplication equation. *Order of factors may vary.*

14.  $18 \div 6 = 3$

$$3 \times 6 = 18$$

15.  $28 \div 4 = 7$

$$7 \times 4 = 28$$

16.  $81 \div 9 = 9$

$$9 \times 9 = 81$$

17.  $72 \div 8 = 9$

$$9 \times 8 = 72$$



Identify the parts of the multiplication equation: **factor** or **product**.

1. 435 product

$$\begin{array}{r} 87 \\ \times 5 \\ \hline 435 \end{array}$$

2. 5 factor

3. 87 factor

Use a multiplication property to complete the equation.

4.  $86 \times \underline{1} = 86$

8.  $(6 \times 2) \times 8 = 6 \times (\underline{2} \times 8)$

5.  $19 \times 3 = 3 \times \underline{19}$

9.  $47 \times \underline{0} = 0$

6.  $9 \times (4 \times \underline{3}) = (9 \times 4) \times 3$

10.  $35 \times \underline{1} = 35$

7.  $6,754 \times \underline{1} = 6,754$

11.  $84 \times 13 = \underline{13} \times 84$

Solve.

12. 
$$\begin{array}{r} 547 \\ \times 315 \\ \hline 172,305 \end{array}$$

13. 
$$\begin{array}{r} 231 \\ \times 103 \\ \hline 23,793 \end{array}$$

14. 
$$\begin{array}{r} 854 \\ \times 671 \\ \hline 573,034 \end{array}$$

15. 
$$\begin{array}{r} 790 \\ \times 436 \\ \hline 344,440 \end{array}$$

16. 
$$\begin{array}{r} 2,543 \\ \times 174 \\ \hline 442,482 \end{array}$$

17. 
$$\begin{array}{r} 984 \\ \times 617 \\ \hline 607,128 \end{array}$$

18. 
$$\begin{array}{r} 4,328 \\ \times 754 \\ \hline 3,263,312 \end{array}$$

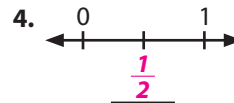
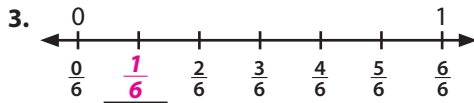
Identify the parts of the fraction: **numerator** and **denominator**.

1. 8 denominator



2. 5 numerator

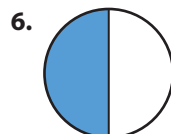
Write the missing fraction on the number line.



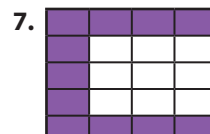
Write the fraction for the part that is colored.



$\frac{2}{3}$



$\frac{1}{2}$



$\frac{11}{20}$



$\frac{4}{8}$  or  $\frac{1}{2}$

Write a comparison sentence using **>**, **<**, or **=**.

9.  $\frac{8}{8}$  **>**  $\frac{2}{4}$

10.  $\frac{2}{3}$  **>**  $\frac{1}{4}$

11.  $\frac{5}{10}$  **=**  $\frac{1}{2}$

12.  $\frac{1}{9}$  **<**  $\frac{4}{7}$


13.  $\frac{3}{12}$  **=**  $\frac{1}{4}$

14.  $\frac{2}{6}$  **<**  $\frac{9}{10}$

15.  $\frac{1}{3}$  **<**  $\frac{1}{2}$

16.  $\frac{7}{9}$  **>**  $\frac{1}{4}$

Identify the figure as **line**, **line segment**, or **ray**.

1.   
line segment

2.   
ray

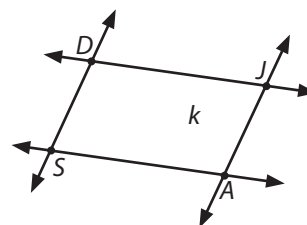
3.   
line

Use plane  $k$  to find the answer.

Use symbols to name the lines and line segments.

4. Name 4 points on plane  $k$ . D, J, A, S

5. Name 2 lines on plane  $k$ .  $\overleftrightarrow{DJ}$ ,  $\overleftrightarrow{JA}$ ,  $\overleftrightarrow{AS}$ , or  $\overleftrightarrow{SD}$



Write **parallel**, **perpendicular**, or **intersecting** to complete the sentence.

Use the map to find the answer.

6. Carnation and Maple are perpendicular streets.

7. Dogwood and Oak are intersecting streets.

8. Maple and Oak are parallel streets.

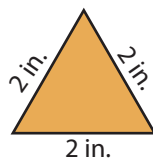
9. Carnation and Primrose are parallel streets.

10. Primrose and Maple are perpendicular streets.



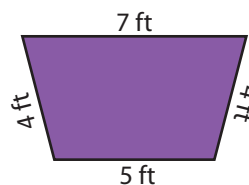
Write an addition equation to find the perimeter of the figure.

1.



$$2 \text{ in.} + 2 \text{ in.} + 2 \text{ in.} = 6 \text{ in.}$$

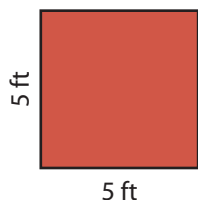
2.



$$7 \text{ ft} + 4 \text{ ft} + 5 \text{ ft} + 4 \text{ ft} = 20 \text{ ft}$$

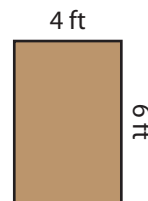
Multiply *length*  $\times$  *width* to find the area of the figure.  
Label the answer as **square feet**.

3.



$$5 \text{ ft} \times 5 \text{ ft} = 25 \text{ square feet}$$

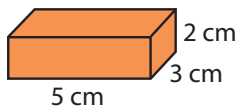
4.



$$4 \text{ ft} \times 6 \text{ ft} = 24 \text{ square feet}$$

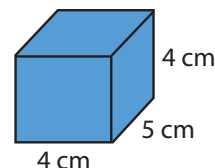
Find the volume of the figure by multiplying *length*  $\times$  *width*  $\times$  *height*.

5.



$$\frac{5}{l} \text{ cm} \times \frac{3}{w} \text{ cm} \times \frac{2}{h} \text{ cm} = 30 \text{ cm}^3$$

6.



$$\frac{4}{l} \text{ cm} \times \frac{5}{w} \text{ cm} \times \frac{4}{h} \text{ cm} = 80 \text{ cm}^3$$

Write the measurement of the line segment.

1.   $4\frac{1}{2}$  in.

2.   $2\frac{1}{2}$  in.



Complete the fact.

3. 1 ft = 12 in.

4. 1 yd = 36 in.

5. 1 yd = 3 ft

6. 1 mi = 5,280 ft

7. 1 mi = 1,760 yd

Write the equivalent measurement.

4 ft    3 yd    24 in.    72 in.

8. 2 ft = 24 in.

9. 48 in. = 4 ft

10. 9 ft = 3 yd

11. 2 yd = 72 in.

Write the unit of measurement.

4 ft 2 in.    2 in.    26 ft    6 ft

12. the height of a man 6 ft

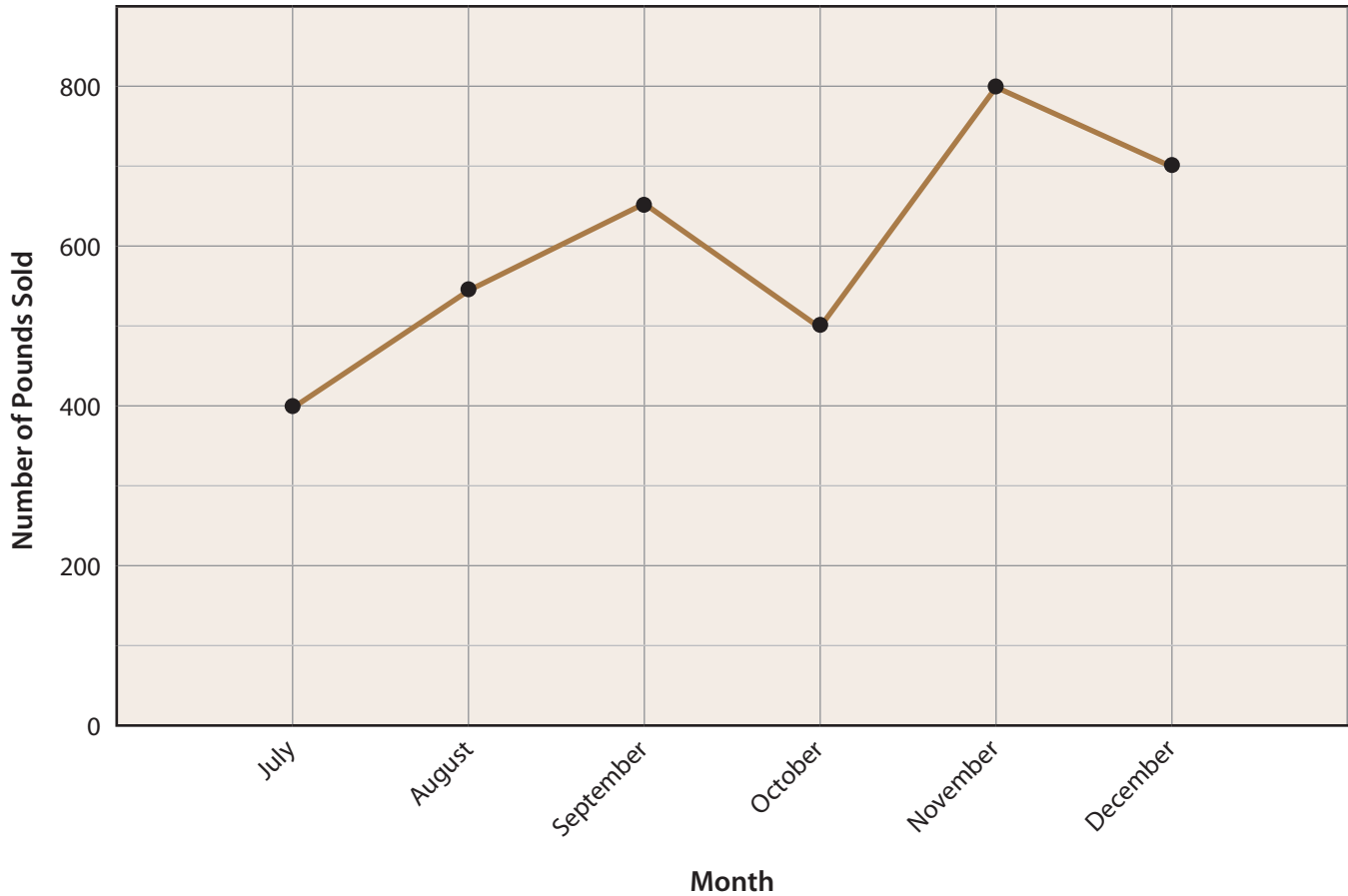
13. the width of a house 26 ft

14. the length of a desk 4 ft 2 in.

15. the width of a cell phone 2 in.

Use the data from the line graph to answer the question.

**Purrfect Pet Food Company Sales Report**



1. What data is shown on this graph?

*the amount of pet food sold from July  
to December*

2. Which kind of pet does this company probably make food for?

*cats*

3. Did sales increase or decrease from September to October?

*decrease*

4. Where is the greatest increase in sales shown?

*from October to November*

5. Do sales seem to be generally increasing or decreasing for this company?

*increasing*

6. Which month shows the highest sales?

*November*

7. Which month had the lowest sales?

*July*

8. What is the range (difference between the greatest and least amount) of sales?

*$800 - 400 = 400$  lb*

Use the data from the chart to find the answer.

Katy and her cousins are keeping track of the number of pages they read during the library's summer reading contest.

**Pages read during the week of 7/14–7/20**

Katy—1,400 pages	Lydia—800 pages
Joshua—975 pages	Jonathan—1,005 pages

1. How many more pages did Katy read than Joshua?

$$1,400 - 975 = 425 \text{ pages}$$

2. How many pages did the cousins read altogether?

$$1,400 + 800 + 975 + 1,005 = 4,180 \text{ pages}$$

3. What was the average number of pages read the week of July 14–20?

$$(1,400 + 800 + 975 + 1,005) \div 4 = 1,045 \text{ pages}$$

4. Each book that Lydia read had 200 pages. How many books did she read?

$$800 \div 200 = 4 \text{ books}$$

Solve.

Tim, Dave, and John are selling tickets to the school play, *Cheaper by the Dozen*. A student ticket costs \$3.75, and an adult ticket costs \$5.50.

5. John sold 7 adult tickets to his neighbors. How much money should he collect?

$$7 \times \$5.50 = \$38.50$$

6. John's neighbors gave him \$50 for the tickets. How much change should John give back to them?

$$\$50.00 - \$38.50 = \$11.50$$

7. Dave sold 3 student tickets and 2 adult tickets. What is the total cost?

$$(3 \times \$3.75) + (2 \times \$5.50) = \$22.25$$

8. Tim sold 8 student tickets and 3 adult tickets. What is the total cost?

$$(8 \times \$3.75) + (3 \times \$5.50) = \$46.50$$

Solve.

1.  $375 + 14 + 72 + 7 = \underline{468}$

2.  $9,432 + 108 + 17 + 64 = \underline{9,621}$

3.  $3.5 + 0.87 + 21.46 = \underline{25.83}$

$$\begin{array}{r} 4. \quad 6,475 \\ + 1,328 \\ \hline 7,803 \end{array}$$

$$\begin{array}{r} 5. \quad 768 \\ + 314 \\ \hline 1,082 \end{array}$$

$$\begin{array}{r} 6. \quad 43.89 \\ + 7.21 \\ \hline 51.10 \end{array}$$

$$\begin{array}{r} 7. \quad \$84.00 \\ + \$62.58 \\ \hline \$146.58 \end{array}$$

$$\begin{array}{r} 8. \quad 907 \\ - 368 \\ \hline 539 \end{array}$$

$$\begin{array}{r} 9. \quad 453 \\ - 372 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 10. \quad 102 \\ - 84 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 11. \quad 843 \\ - 518 \\ \hline 325 \end{array}$$

$$\begin{array}{r} 12. \quad 75 \\ \times 16 \\ \hline 1,200 \end{array}$$

$$\begin{array}{r} 13. \quad 843 \\ \times 37 \\ \hline 31,191 \end{array}$$

$$\begin{array}{r} 14. \quad 6,452 \\ \times 108 \\ \hline 696,816 \end{array}$$

$$\begin{array}{r} 15. \quad 375 \\ \times 218 \\ \hline 81,750 \end{array}$$

$$16. \quad \begin{array}{r} 46 \\ 4 \overline{)184} \end{array}$$

$$17. \quad \begin{array}{r} 8 \\ 42 \overline{)336} \end{array}$$

$$18. \quad \begin{array}{r} 20 \\ 60 \overline{)1,200} \end{array}$$

$$19. \quad \begin{array}{r} 5 \\ 35 \overline{)175} \end{array}$$



Write factor pairs for numbers that are composite.  
Write **prime** if there are no other factors.

- |  |  |
|--|--|
| <p>1. <span style="border: 1px solid black; padding: 2px 10px; display: inline-block;">18</span></p> <p style="margin-left: 40px;"><math>1 \times 18</math></p> <p style="margin-left: 40px;"><b><math>2 \times 9, 3 \times 6</math></b></p> <hr style="width: 80%; margin-left: 0;"/> | <p>2. <span style="border: 1px solid black; padding: 2px 10px; display: inline-block;">27</span></p> <p style="margin-left: 40px;"><math>1 \times 27</math></p> <p style="margin-left: 40px;"><b><math>3 \times 9</math></b></p> <hr style="width: 80%; margin-left: 0;"/> |
| <p>3. <span style="border: 1px solid black; padding: 2px 10px; display: inline-block;">37</span></p> <p style="margin-left: 40px;"><math>1 \times 37</math></p> <p style="margin-left: 40px;"><b>prime</b></p> <hr style="width: 80%; margin-left: 0;"/>                               | <p>4. <span style="border: 1px solid black; padding: 2px 10px; display: inline-block;">10</span></p> <p style="margin-left: 40px;"><math>1 \times 10</math></p> <p style="margin-left: 40px;"><b><math>2 \times 5</math></b></p> <hr style="width: 80%; margin-left: 0;"/> |

Write the expression in **exponent form**. Solve.

- |   |   |  |  |
|---|---|--|--|
| <p>5. <math>3 \times 3 \times 3 \times 3</math></p> <p style="margin-left: 40px;"><b><math>3^4</math></b></p> <hr style="width: 80%; margin-left: 0;"/> <p style="margin-left: 40px;"><b>81</b></p> | <p>6. <math>7 \times 7 \times 7</math></p> <p style="margin-left: 40px;"><b><math>7^3</math></b></p> <hr style="width: 80%; margin-left: 0;"/> <p style="margin-left: 40px;"><b>343</b></p> | <p>7. <math>2 \times 2 \times 2 \times 2 \times 2</math></p> <p style="margin-left: 40px;"><b><math>2^5</math></b></p> <hr style="width: 80%; margin-left: 0;"/> <p style="margin-left: 40px;"><b>32</b></p> | <p>8. <math>4 \times 4 \times 4</math></p> <p style="margin-left: 40px;"><b><math>4^3</math></b></p> <hr style="width: 80%; margin-left: 0;"/> <p style="margin-left: 40px;"><b>64</b></p> |
|---|---|--|--|

Solve.

- |  |   |   |   |
|--|---|---|---|
| <p>9. <math>\begin{array}{r} 375 \\ \times 786 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>294,750</b></p> | <p>10. <math>\begin{array}{r} 135 \\ \times 107 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>14,445</b></p>  | <p>11. <math>\begin{array}{r} 451 \\ \times 202 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>91,102</b></p>  | <p>12. <math>\begin{array}{r} 784 \\ \times 601 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>471,184</b></p>     |
| <p>13. <math>\begin{array}{r} 422 \\ \times 219 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>92,418</b></p> | <p>14. <math>\begin{array}{r} 507 \\ \times 260 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>131,820</b></p> | <p>15. <math>\begin{array}{r} 946 \\ \times 834 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>788,964</b></p> | <p>16. <math>\begin{array}{r} 5,187 \\ \times 918 \\ \hline \end{array}</math></p> <p style="margin-left: 20px;"><b>4,761,666</b></p> |

Write the divisor that the number is divisible by.

1. 375 is divisible by 5.

2      5      10

2. 824 is divisible by 4.

4      6      10

3. 4,512 is divisible by 3.

3      5      9

Use the statement to write an equation. Solve.

Mrs. Elliot has 240 toy coins.

4. Mrs. Elliot used 24 coins to decorate the party invitations. How many coins are left?

$$240 - 24 = 216 \text{ coins}$$

5. Mrs. Elliot will divide the remaining coins among 12 party bags. How many coins will each guest receive?

$$216 \div 12 = 18 \text{ coins}$$

Follow the Order of Operations to solve. *Steps to solve may vary.*

6.  $18 - 2 \times 3 + 7 = \underline{19}$

$$18 - 6 + 7 = 19$$

7.  $54 \div 6 + 2 - 7 = \underline{4}$

$$9 + 2 - 7 = 4$$

8.  $(6 \times 3) + 7 - 5 \times 2 = \underline{15}$

$$18 + 7 - 10 = 15$$

9.  $(7 \times 8) - 3^3 + 5 = \underline{34}$

$$56 - (3 \times 3 \times 3) + 5 = 56 - 27 + 5 = 34$$

Solve.

10.  $16 \overline{)128} \quad \underline{8}$

11.  $35 \overline{)7,035} \quad \underline{201}$

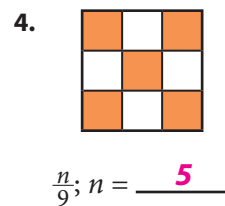
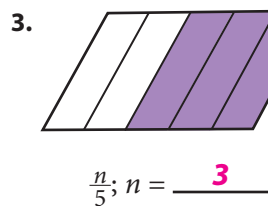
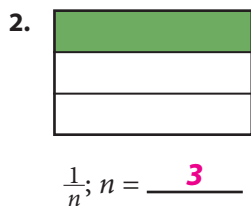
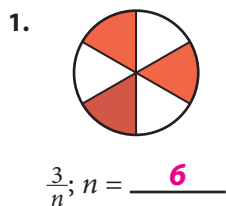
12.  $14 \overline{)350} \quad \underline{25}$

13.  $55 \overline{)1,045} \quad \underline{19}$

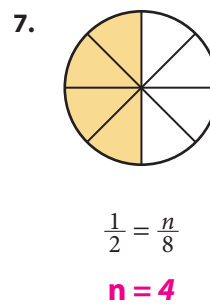
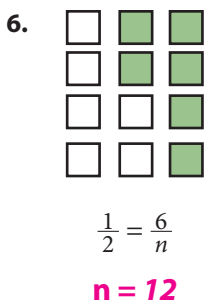
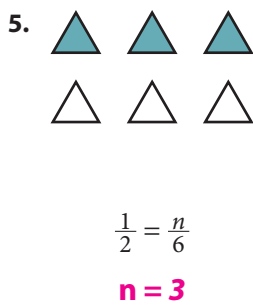
14.  $8 \overline{)2,752} \quad \underline{344}$

15.  $21 \overline{)1,365} \quad \underline{65}$

Use the picture to write the value of  $n$ .



Solve for  $n$ .

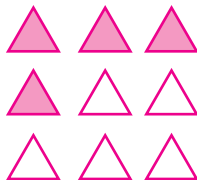


Draw a picture for the sentence. *Pictures may vary.*

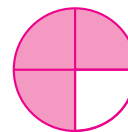
8.  $\frac{1}{3}$  of the square is blue.



9.  $\frac{4}{9}$  of the triangles are red.



10.  $\frac{3}{4}$  of the circle is orange.



Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

11.  $\frac{4}{8} \text{ } \textcircled{<} \text{ } \frac{6}{7}$

12.  $\frac{3}{4} \text{ } \textcircled{>} \text{ } \frac{2}{10}$

13.  $\frac{3}{6} \text{ } \textcircled{=} \text{ } \frac{5}{10}$

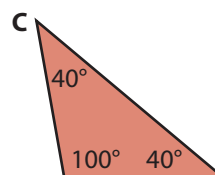
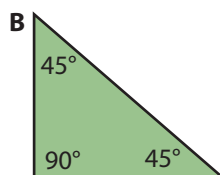
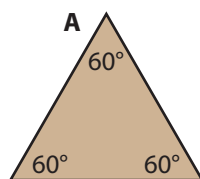
14.  $\frac{1}{9} \text{ } \textcircled{<} \text{ } \frac{1}{2}$

15.  $\frac{7}{8} \text{ } \textcircled{>} \text{ } \frac{7}{10}$

16.  $\frac{6}{12} \text{ } \textcircled{=} \text{ } \frac{2}{4}$

Write the letter of the triangle that is the right triangle.

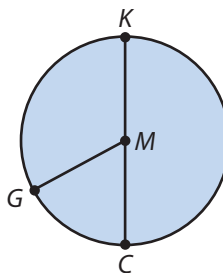
1. **B**



Use the line segment symbol to write the answer.

2. One radius of circle  $M$  is  **$\overline{MG}$ ,  $\overline{MK}$ , or  $\overline{MC}$** .

3. The diameter of circle  $M$  is  **$\overline{KC}$** .



Write the name of the shape.

hexagon octagon pentagon quadrilateral triangle

4.



**quadrilateral**

5.



**pentagon**

6.



**triangle**

7.



**octagon**

8.



**quadrilateral**

9.



**hexagon**

Write the number to match the expression.

678,451,932    768,329,154    392,415,786    347,918,256

1. value of 8 is 8,000

347,918,256

2. 392 millions, 415 thousands, 786 ones

392,415,786

3. six hundred seventy-eight million, four hundred fifty-one thousand, nine hundred thirty-two

678,451,932

4.  $700,000,000 + 60,000,000 + 8,000,000 + 300,000 + 20,000 + 9,000 + 100 + 50 + 4$

768,329,154

Write the number to match the statement.

5. One of the Northwest Brook Falls in New York is 8 feet high. 8

-8    5    -5    8

6. The shark swam lazily in circles about 5 feet below the surface. -5

7. Dad was 5 strokes over par during his golf game. 5

8. New Orleans, Louisiana, is 8 feet below sea level. -8

Choose the answer.

9. What is true about the set of numbers 1, 3, 15, and 45?

Only 3 is a prime number.

All are factors of 45.

Both 15 and 45 are composite numbers.

All of the above are true.

10. Which is not a name for 302?

$300 + 2$

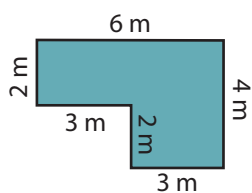
$3,000 + 2$

three hundred two

three hundreds, zero tens, two ones

Identify the equation as the **area** or the **perimeter** of the shape. Solve.

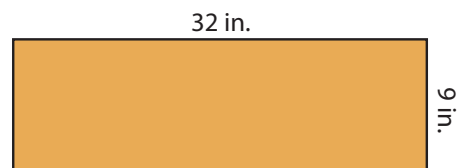
1.



$$2\text{ m} + 6\text{ m} + 4\text{ m} + 3\text{ m} + 2\text{ m} + 3\text{ m} = \underline{20}\text{ m}$$

**perimeter**

2.



$$9\text{ in.} \times 32\text{ in.} = \underline{288}\text{ in.}^2$$

**area**

Solve.

3.  $32 \overline{)384} \quad \underline{12}$

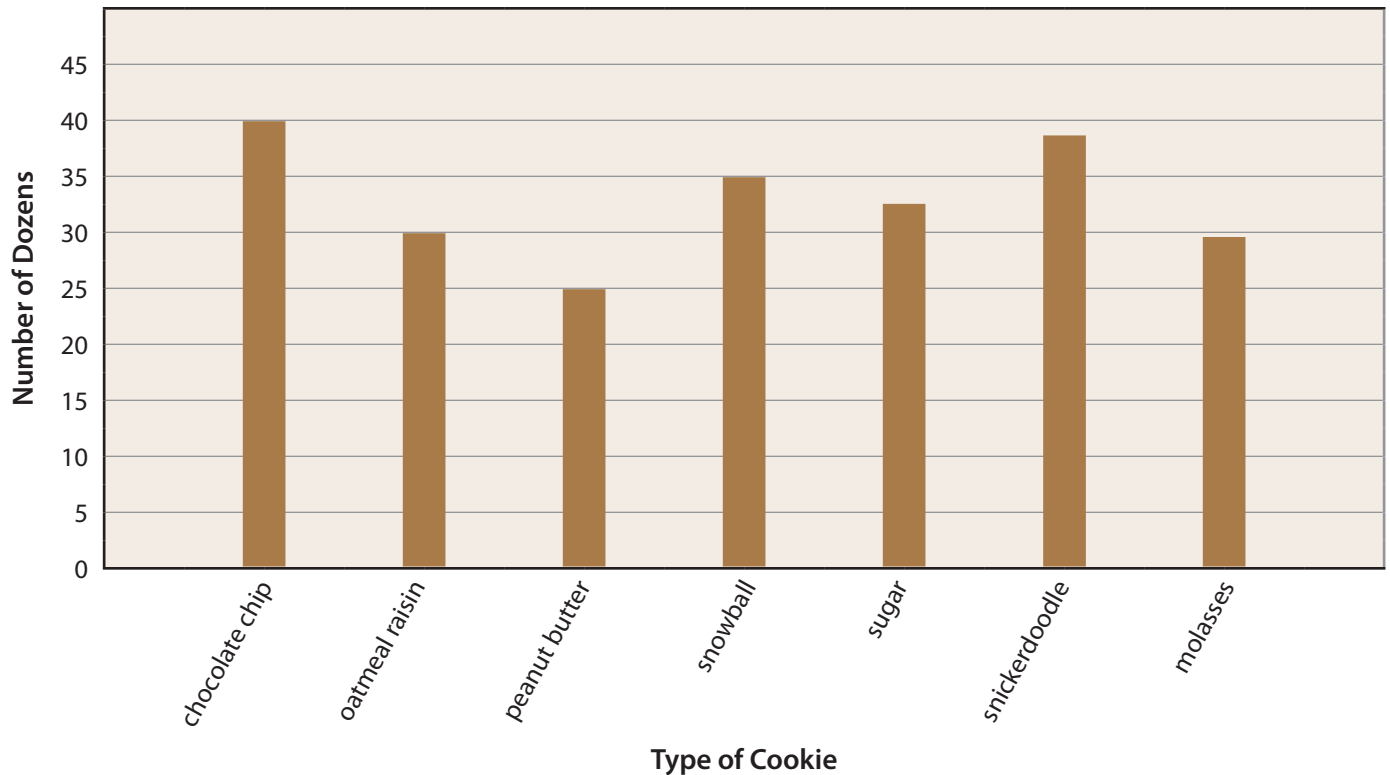
4.  $25 \overline{)500} \quad \underline{20}$

5.  $4 \overline{)636} \quad \underline{159}$

6.  $85 \overline{)7,055} \quad \underline{83}$

Use the data from the bar graph to find the answer.

**Snow Bakery Cookie Sales**



1. Emily recorded how many cookies her bakery sold last month. Which type of cookie sold most?

**chocolate chip**

2. Which types of cookies sold more than 35 dozen?

**chocolate chip and snickerdoodle**

3. Write an equation that tells how many individual peanut butter cookies were sold.

**$25 \times 12 = 300$  cookies**

4. How many dozen more snowball cookies were sold than peanut butter cookies?

**10 dozen**

5. Which type of cookie had 29 dozen sales?

**molasses**

6. How many dozen sugar cookies were sold?

**32 dozen**

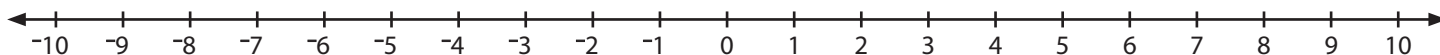
7. Which sold more, the oatmeal raisin cookies or the molasses cookies?

**oatmeal raisin**

8. If 229 dozen cookies were sold, how many individual cookies were sold altogether?

**$229 \times 12 = 2,748$  cookies**

Use the number line to solve.



1.  $7 + -7 = \underline{0}$

4.  $-6 + -2 = \underline{-8}$

7.  $-2 + 9 = \underline{7}$

2.  $1 + -3 = \underline{-2}$

5.  $-6 + -4 = \underline{-10}$

8.  $7 + -2 = \underline{5}$

3.  $4 + -7 = \underline{-3}$

6.  $8 + -3 = \underline{5}$

9.  $10 + -3 = \underline{7}$

Follow the Order of Operations to solve. *Steps to solve may vary.*

10.  $24 \div 6 + 2 - 1 = \underline{5}$   
 $4 + 2 - 1 = 5$

13.  $5 + 10 \times 12 = \underline{125}$   
 $5 + 120 = 125$

16.  $6 \times (5 + 3) = \underline{48}$   
 $6 \times 9 = 48$

11.  $(25 \div 5) \div 6 - 2 = \underline{3}$   
 $30 \div 6 - 2 =$   
 $5 - 2 = 3$

14.  $8 + 3 + 5^2 = \underline{36}$   
 $8 + 3 + 5 \times 5 =$   
 $8 + 3 + 25 = 36$

17.  $48 \div (4 + 6 - 2) = \underline{6}$   
 $48 \div 8 = 6$

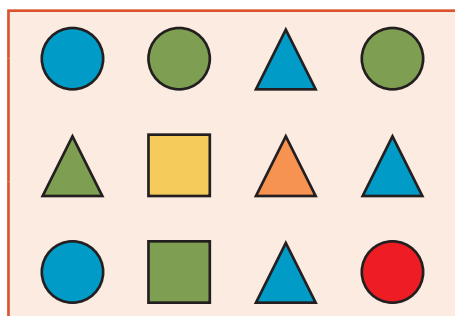
12.  $(6 - 3)^2 \times 7 = \underline{63}$   
 $3^2 \times 7 =$   
 $3 \times 3 \times 7 = 63$

15.  $(5 - 3)^4 \div 4 = \underline{4}$   
 $2^4 \div 4 =$   
 $2 \times 2 \times 2 \times 2 \div 4 =$   
 $16 \div 4 = 4$

18.  $(25 - 15) \times 7 = \underline{70}$   
 $10 \times 7 = 70$



Write a fraction to answer the question.

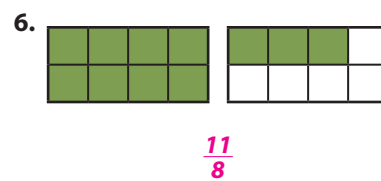
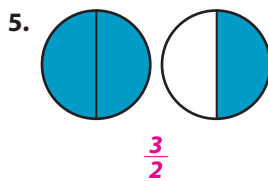
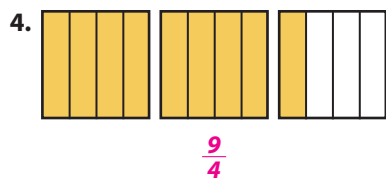


1. What part of the set is triangles?  $\frac{5}{12}$

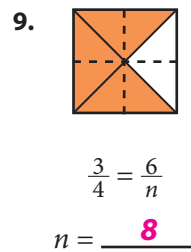
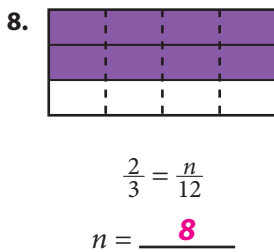
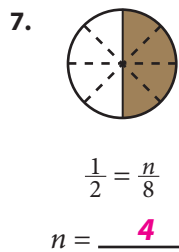
2. What part of the set is circles?  $\frac{5}{12}$

3. What part of the set is yellow?  $\frac{1}{12}$

Write the improper fraction for the picture.



Use the picture to find the value for  $n$ .



Rename the mixed number as an improper fraction.

Rename the improper fraction as a mixed number.

10.  $3\frac{1}{4} = \frac{13}{4}$

11.  $\frac{17}{8} = 2\frac{1}{8}$

12.  $6\frac{4}{9} = \frac{58}{9}$

13.  $\frac{22}{4} = 5\frac{2}{4}$

Write the fraction in lowest terms. Identify the GCF.

14.  $\frac{18}{60} = \frac{3}{10}$

15.  $\frac{48}{56} = \frac{6}{7}$

16.  $\frac{6}{12} = \frac{1}{2}$

17.  $\frac{12}{16} = \frac{3}{4}$

GCF = 6

GCF = 8

GCF = 6

GCF = 4

Follow the Order of Operations to solve. *Steps to solve may vary.*

1.  $(6 + 4) \times 5 - 3 = \underline{47}$   
 $10 \times 5 - 3 =$   
 $50 - 3 = 47$

2.  $(65 - 5) \div 5 + 4 = \underline{16}$   
 $60 \div 5 + 4 =$   
 $12 + 4 = 16$

3.  $64 \div (4 \times 2) = \underline{8}$   
 $64 \div 8 = 8$

4.  $6 \times 3 + 9 = \underline{27}$   
 $18 + 9 = 27$

Solve.

5. 
$$\begin{array}{r} 7,432 \\ + 379 \\ \hline 7,811 \end{array}$$

6. 
$$\begin{array}{r} 1,492 \\ + 1,074 \\ \hline 2,566 \end{array}$$

7. 
$$\begin{array}{r} 75,612 \\ + 4,987 \\ \hline 80,599 \end{array}$$

8. 
$$\begin{array}{r} 654,312 \\ + 579,488 \\ \hline 1,233,800 \end{array}$$

9. 
$$\begin{array}{r} \$54.17 \\ - \$6.75 \\ \hline \$47.42 \end{array}$$

10. 
$$\begin{array}{r} 674 \\ - 329 \\ \hline 345 \end{array}$$

11. 
$$\begin{array}{r} 9,114 \\ - 7,857 \\ \hline 1,257 \end{array}$$

12. 
$$\begin{array}{r} 45 \\ - 16 \\ \hline 29 \end{array}$$

13.  $17 \cdot 8 = \underline{136}$

17.  $120 \div 6 = \underline{20}$

14.  $65 \times 32 = \underline{2,080}$

18.  $1,300 \div 20 = \underline{65}$

15.  $6,924 \times 375 = \underline{2,596,500}$

19.  $425 \div 17 = \underline{25}$

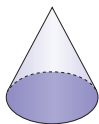
16.  $391 \times 25 = \underline{9,775}$

20.  $5,748 \div 12 = \underline{479}$

Name the shape.

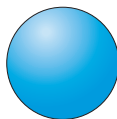
cone   cylinder   cube   sphere

1.



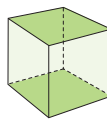
*cone*

2.



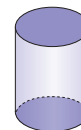
*sphere*

3.



*cube*

4.



*cylinder*

Use the figures above to complete the sentence.

5. A *cylinder* has a curved surface and 2 circular bases.

6. A *cube* has 6 identical faces.

7. A *cone* has a vertex, one circular face, and a curved surface.

8. A *sphere* has no faces, no edges, and no vertices.

Solve.

$$\begin{array}{r} 9. \quad 67 \\ \times 14 \\ \hline 938 \end{array}$$

$$\begin{array}{r} 10. \quad 5,134 \\ \times 375 \\ \hline 1,925,250 \end{array}$$

$$\begin{array}{r} 11. \quad 9,421 \\ \times 77 \\ \hline 725,417 \end{array}$$

$$\begin{array}{r} 12. \quad 16,425 \\ \times 812 \\ \hline 13,337,100 \end{array}$$

13.  $4,064 \div 16 = 254$

14.  $31,378 \div 541 = 58$

15.  $44,856 \div 712 = 63$

16.  $20,139 \div 21 = 959$

Write the value of the 7.

1. 34.72 0.7

2. 196.347 0.007

3. 73.985 70

Solve.

$$\begin{array}{r} 4. \quad \$16.84 \\ + \$12.75 \\ \hline \$29.59 \end{array}$$

$$\begin{array}{r} 8. \quad 9.6 \\ + 8.4 \\ \hline 18.0 \end{array}$$

$$\begin{array}{r} 12. \quad 57.14 \\ + 31.98 \\ \hline 89.12 \end{array}$$

$$\begin{array}{r} 16. \quad 16.354 \\ + 2.039 \\ \hline 18.393 \end{array}$$

$$\begin{array}{r} 5. \quad \$20.00 \\ - \$17.74 \\ \hline \$2.26 \end{array}$$

$$\begin{array}{r} 9. \quad \$35.00 \\ - \$32.98 \\ \hline \$2.02 \end{array}$$

$$\begin{array}{r} 13. \quad 16.359 \\ - 5.142 \\ \hline 11.217 \end{array}$$

$$\begin{array}{r} 17. \quad 2.82 \\ - 1.59 \\ \hline 1.23 \end{array}$$

$$\begin{array}{r} 6. \quad \$42.16 \\ \times 12 \\ \hline \$505.92 \end{array}$$

$$\begin{array}{r} 10. \quad 16.8 \\ \times 3 \\ \hline 50.4 \end{array}$$

$$\begin{array}{r} 14. \quad \$5.50 \\ \times 14 \\ \hline \$77.00 \end{array}$$

$$\begin{array}{r} 18. \quad 4.009 \\ \times 27 \\ \hline 108.243 \end{array}$$

$$\begin{array}{r} \$22.46 \\ 7. \quad 3 \overline{) \$67.38} \end{array}$$

$$\begin{array}{r} 3.026 \\ 11. \quad 3 \overline{) 9.078} \end{array}$$

$$\begin{array}{r} \$13.49 \\ 15. \quad 8 \overline{) \$107.92} \end{array}$$

$$\begin{array}{r} 1.007 \\ 19. \quad 5 \overline{) 5.035} \end{array}$$

Measure the length of the pencil in inches.

1.   $3\frac{1}{2}$  in.

Complete the fact.

2. 1 ft = 12 in.

3. 1 pt = 2 c

4. 1 lb = 16 oz

1 yd = 36 in.

1 gal = 4 qt

1 tn = 2,000 lb

1 mi = 5,280 ft

Write the best unit of measurement.

5. the length of a nail inches

6. the distance across a room feet

7. the width of Texas miles

8. milk to drink with lunch cups

9. an elephant's weight tons

10. a bag of jellybeans ounces

cups

feet

inches

miles

ounces

tons

Rename the unit of measurement.

11. 6 ft = 2 yd

12. 4 pt =  $\frac{1}{2}$  gal

13. 32 oz = 2 lb

Follow the Order of Operations to solve. *Steps to solve my vary.*

1.  $5 \times 2^3 = \underline{40}$   
 $5 \times (2 \times 2 \times 2) =$   
 $5 \times 8 = 40$
2.  $(7 + 4) \times 3 - 8 = \underline{25}$   
 $11 \times 3 - 8 =$   
 $33 - 8 = 25$
3.  $(24 - 8) \times 2 \div 4 = \underline{8}$   
 $16 \times 2 \div 4 =$   
 $32 \div 4 = 8$
4.  $8 - 2 + 5^2 = \underline{31}$   
 $8 - 2 + (5 \times 5) =$   
 $6 + 25 = 31$

Use the Associative Property and the Commutative Property to solve. *Grouping in equations will vary.*

5.  $4 + 7 + 2 + 6 =$   
 $(4 + 6) + (7 + 2) = 19$
6.  $8 + 9 + 7 + 1 =$   
 $(8 + 7) + (9 + 1) = 25$
7.  $3 + 4 + 12 + 7 =$   
 $(3 + 7) + (4 + 12) = 26$

Use the Distributive Property to solve.

8.  $8 \times 12 =$   
 $8 \times (10 + 2) =$   
 $(8 \times 10) + (8 \times 2) =$   
 $80 + 16 = 96$
9.  $9 \times 12 =$   
 $9 \times (10 + 2) =$   
 $(9 \times 10) + (9 \times 2) =$   
 $90 + 18 = 108$
10.  $4 \times 14 =$   
 $4 \times (10 + 4) =$   
 $(4 \times 10) + (4 \times 4) =$   
 $40 + 16 = 56$

Write an equation for the part-whole model. Solve. *Equations may vary.*

11. 

$n$	
754	916

  
 $754 + 916 = n$   
 $n = 1,670$

12. 

\$500.00	
\$250.00	$n$

  
 $\$500.00 - \$250.00 = n$   
 $n = \$250.00$

Write a fraction to show the probability.

Jamie has a bag of 18 jellybeans. Six jellybeans are purple. She also has 3 green, 7 black, and 2 pink jellybeans.

13. What is the probability that Jamie will pull a pink jellybean out of the bag?  $\underline{\frac{2}{18}}$
14. What is the probability that she will pull out a purple jellybean?  $\underline{\frac{6}{18}}$
15. What is the probability that she will pull out a green one?  $\underline{\frac{3}{18}}$

Solve.

$$\begin{array}{r} 1. \quad 1,247 \\ \quad 3,809 \\ + 5,921 \\ \hline 10,977 \end{array}$$

$$\begin{array}{r} 2. \quad \$52.00 \\ \quad - \$39.84 \\ \hline \$12.16 \end{array}$$

$$\begin{array}{r} 3. \quad 249,731 \\ \quad + 860,572 \\ \hline 1,110,303 \end{array}$$

$$\begin{array}{r} 4. \quad 70,000 \\ \quad - 14,975 \\ \hline 55,025 \end{array}$$

$$\begin{array}{r} 5. \quad 243 \\ \times 150 \\ \hline 36,450 \end{array}$$

$$\begin{array}{r} 6. \quad \$30.75 \\ \times \quad 24 \\ \hline \$738.00 \end{array}$$

$$7. \quad 24 \overline{)8,424} \quad \text{351}$$

$$8. \quad 121 \overline{)42,592} \quad \text{352}$$

$$\begin{array}{l} 9. \quad 16 - (4 \times 3) \div 2 = \underline{10} \\ \quad 16 - 12 \div 2 = \\ \quad 16 - 6 = 10 \end{array}$$

$$\begin{array}{l} 10. \quad 7 + (5 \times 3) + 2^3 = \underline{30} \\ \quad 7 + 15 + 8 = 30 \end{array}$$

$$\begin{array}{l} 11. \quad 8 \times 3 - (6 \div 3) = \underline{22} \\ \quad 24 - 2 = 22 \end{array}$$

$$\begin{array}{l} 12. \quad 4 + 15 \div 5 - 2 = \underline{5} \\ \quad 4 + 3 - 2 = 5 \end{array}$$

### Car Wash

Trucks	\$8.00
Vans	\$5.00
Cars	\$7.00

The sixth-grade class had a car wash to raise money to help a needy family. They spent \$28.79 on washing supplies. The students washed 20 trucks, 34 vans, and 19 cars. Many folks gave the family donations, which amounted to \$59.

13. What was the total amount of money taken in by the students?

\$522

14. What amount of money was left after the cost of the supplies was subtracted?

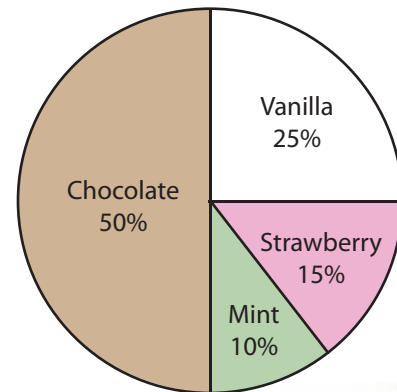
\$522.00 - \$28.79 = \$493.21

Use the data from the circle graph to find the answer.

Mr. Sanford took a survey of 100 people to find the most popular ice-cream flavors. He put the results in a circle graph.

1. What fraction of the people chose chocolate?  $\frac{1}{2}$
2. What fraction of the people chose vanilla?  $\frac{1}{4}$
3. What fraction of the people chose strawberry and mint?  $\frac{1}{4}$
4. Does the circle graph compare continuous data or parts of a whole?  
parts of a whole

**Popular Ice-Cream Flavors**





Write the answer.

1.

Is 631 between 0 and 600  
or between 600 and 1,000?

600 and 1,000

2.

Is 1,143 between 500 and  
1,000 or between 1,000  
and 1,500?

1,000 and 1,500

3.

Is 291,476 between 290,000  
and 390,000 or between  
390,000 and 490,000?

290,000 and 390,000

Use the numbers in the box to write the answer.

4. List the odd numbers.

3, 9, 11, 7

8. Write the sum of 4 and 7.

11

3	2	-6	0	9
11	4	7	8	12

5. List the even numbers.

2, -6, 4, 8, 12

9. Write a negative number.

-6

6. List the prime numbers.

3, 2, 11, 7

10. Write the opposite of -3.

3

7. Write the product of 3 and 4.

12

11. Write the numbers from *least* to *greatest*.

-6, 0, 2, 3, 4, 7, 8, 9, 11, 12

Round the number to the greatest place.

12. 468 500

13. 1.9 2

14. 82.75 80

15. 184,320 200,000

Solve.

16. 
$$\begin{array}{r} 3,746 \\ \times 25 \\ \hline 93,650 \end{array}$$

17. 
$$\begin{array}{r} \$18.75 \\ \times 40 \\ \hline \$750.00 \end{array}$$

18.  $7,280 \div 20 = \underline{364}$

19.  $41,652 \div 18 = \underline{2,314}$

Write the equivalent unit of time.

1. 1 day = 24 hours

2. 1 year = 365 days

3. 1 month = 30 or 31 days

4. 1 minute = 60 seconds

5. 1 week = 7 days

6. 1 year = 52 weeks

Use the calendar to answer the questions.

April						
S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

7. On what day of the week is April 30th? Saturday

8. What is the date of the second Sunday? April 10

9. What does *Th* mean? Thursday

10. Is April the second month or the fourth month of the year? fourth

Write the equivalent unit of measurement.

11. 1 pound = 16 ounces

12. 1 ton = 2,000 pounds

13. 1 gallon = 4 quarts

14. 1 cup = 8 ounces

15. 1 quart = 2 pints

16. 1 pint = 2 cups

Complete the table.

17.

pounds	2	3	5	10
ounces	32	48	80	160

18.

gallons	3	5	7	10
quarts	12	20	28	40

Add or subtract. Write the answer in lowest terms.

$$1. \frac{1}{9} + \frac{3}{9} = \underline{\frac{4}{9}}$$

$$2. \frac{2}{3} + \frac{2}{3} = \underline{\frac{4}{3} = 1\frac{1}{3}}$$

$$3. \frac{4}{5} + \frac{1}{5} = \underline{\frac{5}{5} = 1}$$

$$4. \frac{1}{2} + \frac{1}{2} = \underline{\frac{2}{2} = 1}$$

$$5. \frac{4}{5} - \frac{1}{5} = \underline{\frac{3}{5}}$$

$$6. \frac{6}{9} - \frac{3}{9} = \underline{\frac{3}{9} = \frac{1}{3}}$$

$$7. \frac{2}{3} - \frac{1}{3} = \underline{\frac{1}{3}}$$

$$8. \frac{4}{8} - \frac{3}{8} = \underline{\frac{1}{8}}$$

$$9. \begin{array}{r} 2\frac{1}{5} \\ + 1\frac{2}{5} \\ \hline 3\frac{3}{5} \end{array}$$

$$10. \begin{array}{r} 3\frac{6}{7} \\ + 1\frac{1}{7} \\ \hline 4\frac{7}{7} = 5 \end{array}$$

$$11. \begin{array}{r} 5\frac{2}{3} = 5\frac{4}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 3\frac{3}{6} = 3\frac{1}{2} \end{array}$$

$$12. \begin{array}{r} 5\frac{6}{4} \\ - 3\frac{1}{4} \\ \hline 2\frac{3}{4} \end{array}$$

$$13. \begin{array}{r} \frac{2}{3} = \frac{4}{6} \\ + \frac{1}{6} = \frac{1}{6} \\ \hline \frac{5}{6} \end{array}$$

$$14. \begin{array}{r} \frac{3}{4} = \frac{3}{4} \\ - \frac{1}{2} = \frac{2}{4} \\ \hline \frac{1}{4} \end{array}$$

$$15. \begin{array}{r} 7\frac{1}{3} = 7\frac{2}{6} \\ - 2\frac{1}{6} = 2\frac{1}{6} \\ \hline 5\frac{1}{6} \end{array}$$

$$16. \begin{array}{r} 4\frac{4}{9} = 4\frac{4}{9} \\ + 2\frac{1}{3} = 2\frac{3}{9} \\ \hline 6\frac{7}{9} \end{array}$$

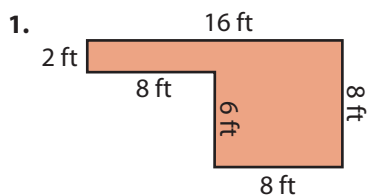
$$17. \begin{array}{r} \frac{2}{3} = \frac{4}{6} \\ + \frac{1}{2} = \frac{3}{6} \\ \hline \frac{7}{6} = 1\frac{1}{6} \end{array}$$

$$18. \begin{array}{r} \frac{3}{4} = \frac{9}{12} \\ - \frac{1}{3} = \frac{4}{12} \\ \hline \frac{5}{12} \end{array}$$

$$19. \begin{array}{r} 3\frac{1}{2} = 3\frac{5}{10} \\ + 1\frac{3}{5} = 1\frac{6}{10} \\ \hline 4\frac{11}{10} = 5\frac{1}{10} \end{array}$$

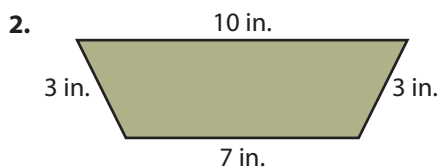
$$20. \begin{array}{r} 8\frac{1}{2} = 8\frac{5}{10} \\ - 3\frac{1}{5} = 3\frac{2}{10} \\ \hline 5\frac{3}{10} \end{array}$$

Find the perimeter of the figure.



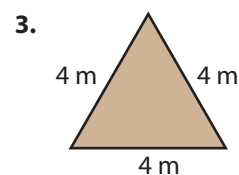
$$P = \underline{48 \text{ ft}}$$

$$16 \text{ ft} + 8 \text{ ft} + 8 \text{ ft} + 6 \text{ ft} + 8 \text{ ft} + 2 \text{ ft} = 48 \text{ ft}$$



$$P = \underline{23 \text{ in.}}$$

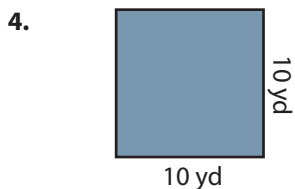
$$10 \text{ in.} + 3 \text{ in.} + 7 \text{ in.} + 3 \text{ in.} = 23 \text{ in.}$$



$$P = \underline{12 \text{ m}}$$

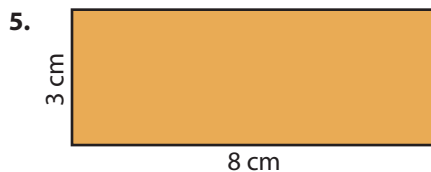
$$3 \times 4 \text{ m} = 12 \text{ m}$$

Write a multiplication equation to find the area of the figure.



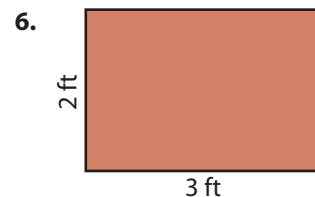
$$A = \underline{100} \text{ yd}^2$$

$$10 \text{ yd} \times 10 \text{ yd} = 100 \text{ yd}^2$$



$$A = \underline{24} \text{ cm}^2$$

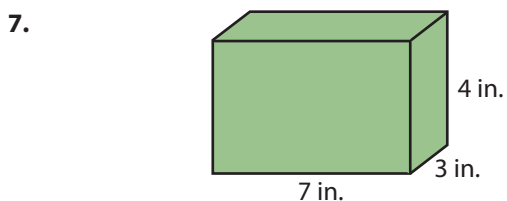
$$3 \text{ cm} \times 8 \text{ cm} = 24 \text{ cm}^2$$



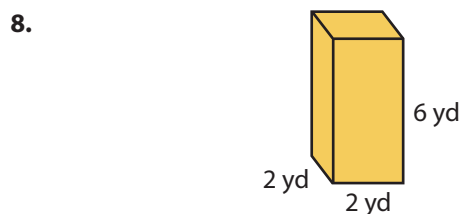
$$A = \underline{6} \text{ ft}^2$$

$$2 \text{ ft} \times 3 \text{ ft} = 6 \text{ ft}^2$$

Find the volume of the figure.

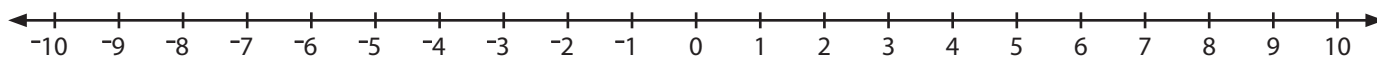


$$\frac{7}{l} \text{ in.} \times \frac{3}{w} \text{ in.} \times \frac{4}{h} \text{ in.} = \underline{84} \text{ in.}^3$$



$$\frac{2}{l} \text{ yd} \times \frac{2}{w} \text{ yd} \times \frac{6}{h} \text{ yd} = \underline{24} \text{ yd}^3$$

Use the number line to solve.



1.  $3 + -5 = \underline{-2}$       2.  $-4 + -4 = \underline{-8}$       3.  $-6 + 4 = \underline{-2}$       4.  $-7 + 7 = \underline{0}$       5.  $-4 + 0 = \underline{-4}$

Solve. Write the answer in lowest terms.

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

7.  $\frac{5}{8} - \frac{2}{8} = \underline{\frac{3}{8}}$

8.  $\frac{2}{3} + \frac{1}{3} = \underline{\frac{3}{3} = 1}$

9.  $\frac{5}{6} - \frac{1}{2} = \underline{\frac{1}{3}}$   
 $\frac{5}{6} - \frac{3}{6} = \frac{2}{6} = \frac{1}{3}$

10.  $\frac{4}{5} - \frac{1}{5} = \underline{\frac{3}{5}}$

11.  $2\frac{1}{5} = \cancel{2}^1 \cancel{\frac{2}{10}}^{\frac{12}{10}}$   
 $- 1\frac{1}{2} = 1\frac{5}{10}$   
 $\underline{\frac{7}{10}}$

12.  $7\frac{5}{6} = \cancel{7}^5 \frac{5}{6}$   
 $- 4\frac{1}{3} = 4\frac{2}{6}$   
 $\underline{3\frac{3}{6} = 3\frac{1}{2}}$

13.  $2\frac{4}{4} = \cancel{2}^2 \frac{4}{4}$   
 $- 2\frac{3}{4}$   
 $\underline{\frac{1}{4}}$

14.  $3\frac{4}{3} = \cancel{3}^4 \frac{4}{3}$   
 $- 1\frac{2}{3}$   
 $\underline{2\frac{2}{3}}$

15.  $6\frac{3}{8} = \cancel{6}^5 \cancel{\frac{3}{8}}^{\frac{11}{8}}$   
 $- 4\frac{1}{2} = 4\frac{4}{8}$   
 $\underline{1\frac{7}{8}}$

Write the product or the quotient.

16.  $\begin{array}{r} \$4.58 \\ \times \quad 5 \\ \hline \$22.90 \end{array}$

17.  $\begin{array}{r} 21.9 \\ \times 31 \\ \hline 678.9 \end{array}$

18.  $\begin{array}{r} 1,568 \\ \times 42 \\ \hline 65,856 \end{array}$

19.  $9,476 \div 23 = \underline{412}$

20.  $21,702 \div 35 = \underline{620r2}$

Determine whether the fraction is closest to 0,  $\frac{1}{2}$ , or 1.

1.  $\frac{1}{8}$  0

2.  $\frac{3}{6}$   $\frac{1}{2}$

3.  $\frac{10}{12}$  1

4.  $\frac{5}{6}$  1

5.  $\frac{2}{12}$  0

6.  $\frac{7}{12}$   $\frac{1}{2}$

Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

7.  $\frac{3}{4}$   $<$   $\frac{5}{6}$

8.  $\frac{1}{3}$   $>$   $\frac{1}{10}$

9.  $\frac{1}{2}$   $=$   $\frac{4}{8}$

10.  $\frac{10}{15}$   $<$   $\frac{9}{10}$

Solve. Write the answer in lowest terms.

11.  $5\frac{3}{4} = 5\frac{6}{8}$   
 $+ 7\frac{2}{8} = 7\frac{2}{8}$   
 $12\frac{8}{8} = 13$

12.  $4\frac{1}{5}$   
 $+ 8\frac{3}{5}$   
 $12\frac{4}{5}$

13.  $1\frac{3}{4} = 1\frac{3}{4}$   
 $+ 2\frac{1}{2} = 2\frac{2}{4}$   
 $3\frac{5}{4} = 4\frac{1}{4}$

14.  $6\frac{1}{5} = 6\frac{2}{10}$   
 $+ 4\frac{1}{2} = 4\frac{5}{10}$   
 $10\frac{7}{10}$

15.  $7\frac{2}{3} = 7\frac{4}{6}$   
 $+ 5\frac{1}{6} = 5\frac{1}{6}$   
 $12\frac{5}{6}$

16.  $3\frac{1}{2} = 3\frac{2}{4}$   
 $- \frac{1}{4} = \frac{1}{4}$   
 $3\frac{1}{4}$

17.  $6\frac{7}{4}$   
 $- 4\frac{3}{4}$   
 $2\frac{1}{4}$

18.  $6\frac{4}{5} = 6\frac{12}{15}$   
 $- 2\frac{2}{3} = 2\frac{10}{15}$   
 $4\frac{2}{15}$

19.  $8\frac{1}{6}$   
 $- 3\frac{2}{6}$   
 $5\frac{5}{6}$

20.  $8\frac{1}{3} = 8\frac{2}{6}$   
 $- 5\frac{1}{6} = 5\frac{1}{6}$   
 $3\frac{1}{6}$

Solve.

$$\begin{array}{r} 1. \quad \$147.53 \\ + \$289.49 \\ \hline \$437.02 \end{array}$$

$$\begin{array}{r} 2. \quad 27.983 \\ - 19.345 \\ \hline 8.638 \end{array}$$

$$\begin{array}{r} 3. \quad 24.50 \\ 193.47 \\ + 82.09 \\ \hline 300.06 \end{array}$$

$$\begin{array}{r} 4. \quad 5.039 \\ - 0.928 \\ \hline 4.111 \end{array}$$

$$5. \quad 2.014 \times 5 = \underline{10.07}$$

$$6. \quad 81.53 \times 2 = \underline{163.06}$$

$$7. \quad 18.54 \div 3 = \underline{6.18}$$

$$8. \quad 4.624 \div 2 = \underline{2.312}$$

$$9. \quad 2.4 + 0.7 + 3.9 = \underline{7}$$

$$10. \quad 12.8 + 1.09 + 0.321 = \underline{14.211}$$

$$11. \quad 85.913 - 7.41 = \underline{78.503}$$

$$12. \quad 3 - 2.5 = \underline{0.5}$$

13. Anna bought three shirts on sale for \$7.89 each. The original cost of each shirt was \$12.00. How much did Anna spend on the three shirts? How much money did she save?

$$\begin{aligned} (3 \times \$12.00) - (3 \times \$7.89) = \\ \$36.00 - \$23.67 = \$12.33 \text{ saved} \end{aligned}$$

14. Tyler needed 4 sections of tubing, each measuring 1.8 inches. The tube that he bought was 1 foot long. What was the total amount of tubing that he needed? How much was left over?

$$\begin{aligned} 12 \text{ in.} - (4 \times 1.8 \text{ in.}) = \\ 12 \text{ in.} - 7.2 \text{ in.} = 4.8 \text{ in. left} \end{aligned}$$

Use the data to answer the questions.

Jona wants to make an A in math. He recorded his grades on a chart. The range for an A is 90 to 100.

Week	1	2	3	4	5	6	7	8	9
Score	85	94	92	98	89				

1. What is Jona's average at Week 5? Is Jona's average in the A range?

$$(85 + 94 + 92 + 98 + 89) \div 5 =$$

$$458 \div 5 = 91.6; \text{ yes}$$

3. List the scores from *least* to *greatest*. Circle the middle score to find the median.

**85, 89, 92, 94, 98**

2. What are Jona's lowest and highest scores? What is the difference between Jona's lowest score and his highest score?

**85 and 98;**

$$98 - 85 = 13 \text{ points}$$

Aaron wanted to find out what material was the best insulator of hot water. He wrapped 2 plastic cups with different insulating materials and filled them with water. Then he measured the temperature of the water at different times. He recorded the results on a line graph.

4. According to the line graph, which material keeps the water hotter longer?

**foam**

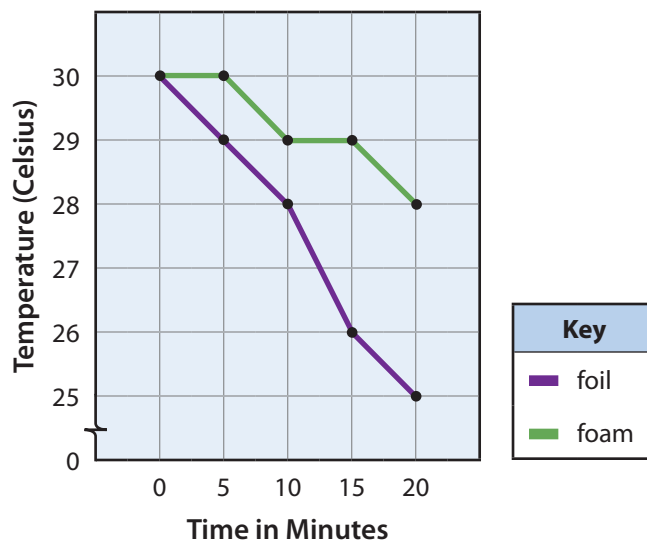
5. What is the title of the graph?

**Best Insulator**

6. What are the labels on the graph?

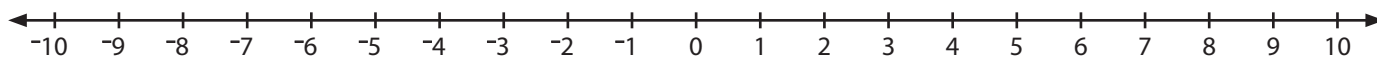
**Temperature (Celsius), Time in Minutes**

**Best Insulator**





Use the number line to find the answer.



1.  $-3 + -2 =$   $-5$

2.  $-5 + 2 =$   $-3$

3.  $-3 + 0 =$   $-3$

4.  $1 + -3 =$   $-2$

5.  $0 + -8 =$   $-8$

6.  $-4 + -5 =$   $-9$

7.  $-1 + -7 =$   $-8$

8.  $4 + -7 =$   $-3$

Write the numbers from *least to greatest*.

9. 

2	-3	1	0
---	----	---	---

  
 $-3$     $0$     $1$     $2$

10. 

-7	8	0	-5
----	---	---	----

  
 $-7$     $-5$     $0$     $8$

11. 

4	3	-4	2
---	---	----	---

  
 $-4$     $2$     $3$     $4$

12. 

6	5	-9	-10
---	---	----	-----

  
 $-10$     $-9$     $5$     $6$

Write a positive or negative number to match the phrase.

13. three degrees below zero  $-3$

17. negative eight  $-8$

14. earned ten points  $10$

18. seven degrees above zero  $7$

15. lost five pounds  $-5$

19. the temperature rose four degrees  $4$

16. behind six points  $-6$

20. ten feet below sea level  $-10$

Solve.

1.  $7 + \underline{4} = 11$
2.  $5 + 9 = \underline{14}$
3.  $16 - \underline{8} = 8$
4.  $4 \times 6 = \underline{24}$
5.  $36 \div 6 = \underline{6}$
6.  $4 + \underline{9} = 13$
7.  $10 - 8 = \underline{2}$
8.  $15 - \underline{9} = 6$
9.  $3 \times \underline{7} = 21$
10.  $48 \div 8 = \underline{6}$
11.  $\underline{7} + 9 = 16$
12.  $17 - 8 = \underline{9}$
13.  $12 \times 6 = \underline{72}$
14.  $2 \times 7 = \underline{14}$
15.  $108 \div 9 = \underline{12}$
16.  $\underline{6} + 8 = 14$
17.  $13 - 7 = \underline{6}$
18.  $6 \times 8 = \underline{48}$
19.  $32 \div 4 = \underline{8}$
20.  $81 \div 9 = \underline{9}$

Complete the table.

21.

× 7	
Input	Output
20	140
80	560
400	2,800
600	4,200
5,000	35,000

22.

+ 8	
Input	Output
40	48
90	98
700	708
1,000	1,008
6,000	6,008

23.

− 6	
Input	Output
30	24
70	64
300	294
700	694
9,000	8,994

24.

÷ 3	
Input	Output
60	20
90	30
300	100
2,100	700
3,600	1,200

Write the factors from *least* to *greatest* for each number pair. Circle the GCF.

1. 16, 24

16: 1, 2, 4, 8, 16

24: 1, 2, 3, 4, 6, 8, 12, 24

2. 12, 36

12: 1, 2, 3, 4, 6, 12

36: 1, 2, 3, 4, 6, 9, 12, 18, 36

3. 8, 10

8: 1, 2, 4, 8

10: 1, 2, 5, 10

Write the LCM for each number pair.

4. 6, 8 24

5. 3, 4 12

6. 9, 5 45

Rename the fraction to its lowest terms. Rename an improper fraction as a mixed number.

7.  $\frac{24}{36} = \frac{2}{3}$

8.  $\frac{16}{14} = 1\frac{2}{7} = 1\frac{1}{7}$

9.  $\frac{36}{45} = \frac{4}{5}$

10.  $\frac{6}{12} = \frac{1}{2}$

11.  $\frac{28}{16} = 1\frac{12}{16} = 1\frac{3}{4}$

12.  $\frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$

Solve. Write the answer in lowest terms.

13.  $\frac{2}{8} + \frac{1}{4} = \frac{4}{8} = \frac{1}{2}$

14.  $\frac{3}{7} + \frac{5}{8} = \frac{59}{56} = 1\frac{3}{56}$

15.  $\frac{7}{9} - \frac{5}{9} = \frac{2}{9}$

16.  $\frac{2}{3} - \frac{1}{4} = \frac{5}{12}$

Answer the questions.

After the museum tour, Mrs. Jay's sixth graders could visit whichever exhibits they were most interested in.  $\frac{3}{20}$  of the students went to the train history exhibit.  $\frac{1}{4}$  of them went to the weapons hall.  $\frac{3}{10}$  of them went to see the habitats section,  $\frac{1}{5}$  went to the art gallery, and  $\frac{1}{10}$  went to the dinosaur exhibit.

17. How many students were in the museum?

20

18. Which exhibit did the most students go to see?

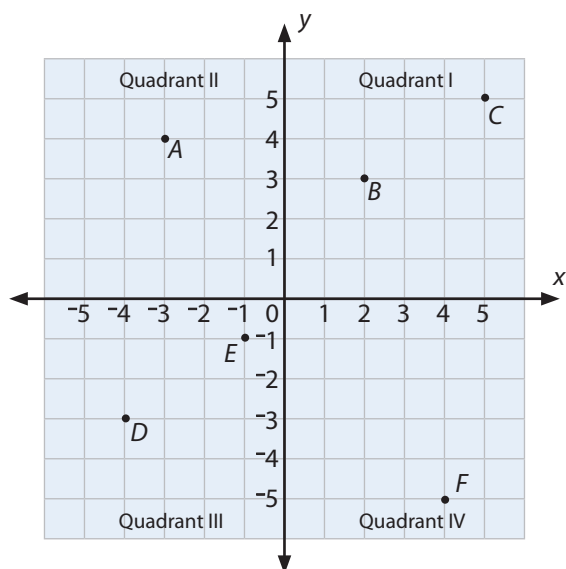
habitats

19. Did more students go to the art gallery or the train history exhibit?

art gallery

20. Which exhibit did 5 of the students go to see?

weapons hall



Name the quadrant in which the point is located.

1. A Quadrant II
2. C Quadrant I
3. E Quadrant III
4. B Quadrant I
5. D Quadrant III
6. F Quadrant IV

Write the coordinates for the point.

7. A (-3, 4)
8. C (5, 5)
9. E (-1, -1)
10. B (2, 3)
11. D (-4, -3)
12. F (4, -5)

Solve.

$$\begin{array}{r} 13. \quad 165 \\ \times 46 \\ \hline 7,590 \end{array}$$

$$\begin{array}{r} 14. \quad 786 \\ \times 451 \\ \hline 354,486 \end{array}$$

$$\begin{array}{r} 15. \quad 953 \\ \times 412 \\ \hline 392,636 \end{array}$$

$$\begin{array}{r} 16. \quad 1,795 \\ \times 302 \\ \hline 542,090 \end{array}$$

$$17. \quad 21 \overline{)336} \quad \text{16}$$

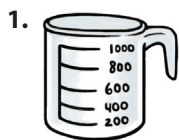
$$18. \quad 43 \overline{)516} \quad \text{12}$$

$$19. \quad 17 \overline{)553} \quad \text{32 r9}$$

$$20. \quad 94 \overline{)1,598} \quad \text{17}$$

Write the best unit of measure for the object.

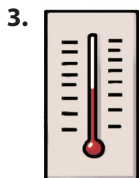
°C cm g mL



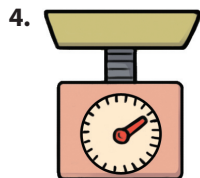
mL



cm



°C



g

Write the best measure for the object.

1 g 2 L 1 m

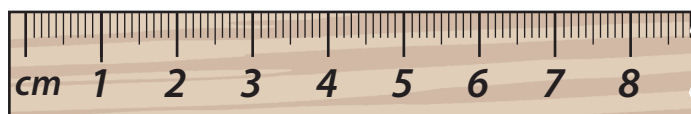
5. baseball bat

1 m

6. paper clip

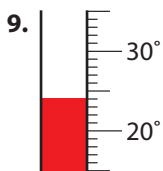
1 g

Write the measurement of the line.

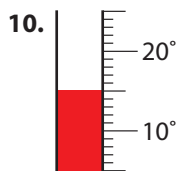


7. black line: 8 cm    8. gray line: 3 cm

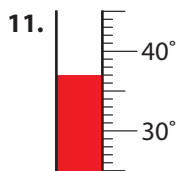
Write the Celsius temperature.



24 °C



15 °C



37 °C

Solve.

12. 
$$\begin{array}{r} 400 \text{ g} \\ - 200 \text{ g} \\ \hline 200 \text{ g} \end{array}$$

13. 
$$\begin{array}{r} 97 \text{ cm} \\ - 15 \text{ cm} \\ \hline 82 \text{ cm} \end{array}$$

14. 
$$\begin{array}{r} 543 \text{ m} \\ - 232 \text{ m} \\ \hline 311 \text{ m} \end{array}$$

15. 
$$\begin{array}{r} 184 \text{ cm} \\ + 712 \text{ cm} \\ \hline 896 \text{ cm} \end{array}$$

16. 
$$\begin{array}{r} 3241 \text{ m} \\ + 1536 \text{ m} \\ \hline 4777 \text{ m} \end{array}$$

17. 
$$\begin{array}{r} 543 \text{ g} \\ + 326 \text{ g} \\ \hline 869 \text{ g} \end{array}$$

Use the numbers in the box to answer the question.

Jeremy and Holly counted the pets that live in their neighborhood. They found 8 dogs, 9 cats, 7 goldfish, 2 birds, and 4 rabbits being kept as pets.

$$\frac{2}{4}$$

8:9

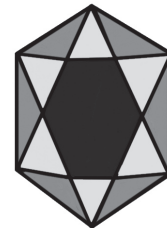
30 to 7

30

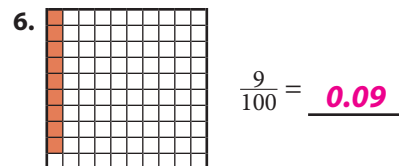
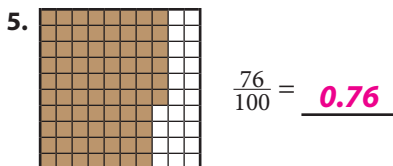
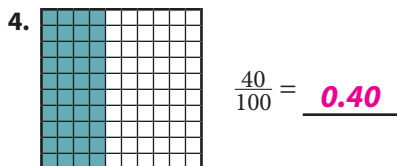
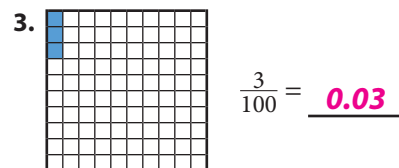
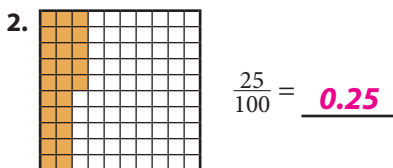
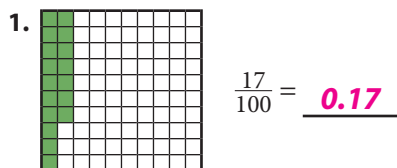
1. How many pets are in their neighborhood? 30
2. What ratio compares dogs to cats in ratio form? 8:9
3. What ratio compares pets to goldfish in word form? 30 to 7
4. What ratio compares birds to rabbits in fraction form?  $\frac{2}{4}$

Use the picture to write the ratio.

5. What is the ratio of white triangles to gray triangles? 6 : 6
6. What is the ratio of the black hexagon to white triangles? 1 : 6



Write the fraction in **decimal form**.



Write the percent in **fraction form**. Write the fraction in lowest terms.

7.  $25\% = \frac{25}{100} = \underline{\frac{1}{4}}$

8.  $30\% = \frac{30}{100} = \underline{\frac{3}{10}}$

9.  $75\% = \frac{75}{100} = \underline{\frac{3}{4}}$

10.  $80\% = \frac{80}{100} = \underline{\frac{4}{5}}$

Use the numbers in the box to answer the questions.

50% 75% 100%

11. Ryan answered all the test questions correctly. What percentage grade did he receive?

100%

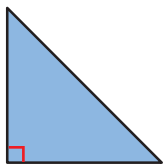
12. Katie scored  $\frac{1}{2}$  of the game points. What percentage of the points did she score?

50%

Classify the triangle according to the measure of its angles.

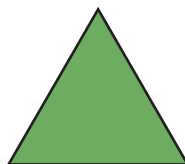
acute obtuse right

1.



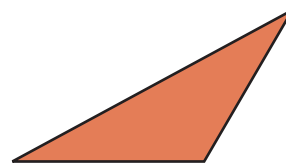
*right*

2.



*acute*

3.

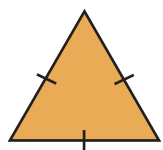


*obtuse*

Classify the triangle according to the length of its sides.

equilateral isosceles scalene

4.



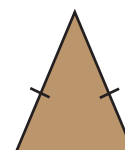
*equilateral*

5.



*scalene*

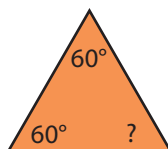
6.



*isosceles*

Find the measure of the unknown angle.

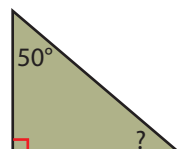
7.



$$180^\circ - (60^\circ + 60^\circ) =$$

$$180^\circ - 120^\circ = 60^\circ$$

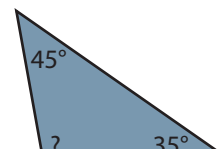
8.



$$180^\circ - (90^\circ + 50^\circ) =$$

$$180^\circ - 140^\circ = 40^\circ$$

9.



$$180^\circ - (45^\circ + 35^\circ) =$$

$$180^\circ - 80^\circ = 100^\circ$$



Write the answer.

1. Estimate the product of 679 and 432. 280,000

2. Estimate the quotient for 2,314 divided into 30 groups. 70 or 80

3. What is the sum of 37,402 and 16,943? 54,345

4. Solve the expression:  $(6 \times 10) + 3$ . 63

5. Solve the expression:  $2 + 1\frac{1}{4}$ .  $3\frac{1}{4}$

6. What is the sum of  $\frac{6}{8}$  and  $\frac{5}{6}$ ?  $1\frac{7}{12}$

Solve.

7.  $(7 \cdot x) + 3 = 45$   $x = 6$

10.  $\frac{3}{7} = \frac{n}{28}$   $n = 12$

8.  $\frac{1}{8}$  of 16 is 2

11.  $\frac{6}{n} = \frac{36}{54}$   $n = 9$

9.  $2.5 \times 4 =$  10 or 10.00

12.  $4.8 \times 6 =$  28.8

Multiply. Use cancellation if possible. Write the answer in lowest terms. *Cancellation steps may vary.*

$$1. \frac{4}{10} \times \frac{3}{4} = \underline{\frac{3}{10}}$$

$$2. \frac{6}{8} \times 5 = \underline{\frac{30}{8} = 3\frac{3}{4}}$$

$$3. \frac{1}{2} \times \frac{2}{6} = \underline{\frac{1}{6}}$$

$$4. \frac{7}{8} \times 1\frac{1}{3} = \underline{1\frac{1}{6}}$$

$$\frac{7}{8} \times \frac{4}{3} = \frac{7}{6} = 1\frac{1}{6}$$

Use the Distributive Property to solve. *Steps used to solve may vary.*

$$5. 2\frac{3}{4} \times 6 = \underline{16\frac{1}{2}}$$

$$(2 \times 6) + (\frac{3}{4} \times 6) =$$

$$12 + (\frac{3}{4} \times \frac{6}{1}) =$$

$$12 + \frac{9}{2} = 16\frac{1}{2}$$

$$6. 4\frac{1}{4} \times 5 = \underline{21\frac{1}{4}}$$

$$(4 \times 5) + (\frac{1}{4} \times 5) =$$

$$20 + (\frac{1}{4} \times \frac{5}{1}) =$$

$$20 + \frac{5}{4} = 21\frac{1}{4}$$

$$7. 2\frac{1}{9} \times 4 = \underline{8\frac{4}{9}}$$

$$(2 \times 4) + (\frac{1}{9} \times 4) =$$

$$8 + (\frac{1}{9} \times \frac{4}{1}) = 8\frac{4}{9}$$

$$8. 1\frac{2}{3} \times 3 = \underline{5}$$

$$(1 \times 3) + (\frac{2}{3} \times 3) =$$

$$3 + (\frac{2}{3} \times \frac{3}{1}) =$$

$$3 + 2 = 5$$

Solve. Write the answer in lowest terms.

9. A lemon stir-fry sauce recipe calls for  $\frac{1}{4}$  of a cup of lemon juice and 2 tablespoons of sugar. Kevin is making stir fry for several people and needs more sauce. How much lemon juice does he need if he doubles the recipe? How much sugar?

$$\frac{1}{4}c + \frac{1}{4}c = \frac{2}{4}c = \frac{1}{2}c \text{ of lemon juice;}$$

$$2 \text{ tbsp} + 2 \text{ tbsp} = 4 \text{ tbsp of sugar}$$

10. Julie is making 5 gift baskets. She needs  $2\frac{1}{2}$  yards of ribbon for each basket. How much ribbon does she need altogether?

$$5 \times 2\frac{1}{2} \text{ yd} = \frac{5}{1} \times \frac{5}{2} \text{ yd} = \frac{25}{2} \text{ yd} = 12\frac{1}{2} \text{ yd}$$

11. Kylie ran  $2\frac{1}{4}$  miles. Joshua ran  $1\frac{7}{8}$  miles. How many miles did the two friends run altogether?

$$2\frac{1}{4} \text{ mi} + 1\frac{7}{8} \text{ mi} = 2\frac{2}{8} \text{ mi} + 1\frac{7}{8} \text{ mi} = 3\frac{9}{8} \text{ mi} = 4\frac{1}{8} \text{ mi}$$

Write the name of the quadrilateral.

parallelogram rectangle rhombus square trapezoid

1.



square

2.



rhombus

3.



parallelogram

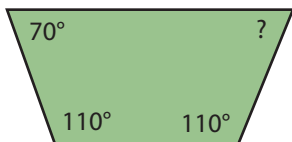
4.



trapezoid

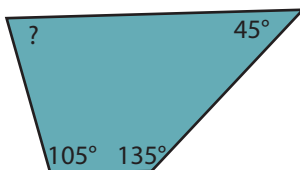
Find the measure of the unknown angle. *Equations may vary.*

5.



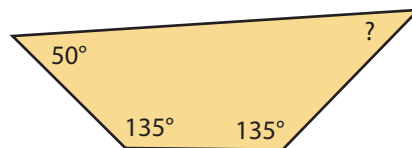
$$\begin{aligned} 360^\circ - (110^\circ + 110^\circ + 70^\circ) &= \\ 360^\circ - 290^\circ &= 70^\circ \end{aligned}$$

6.



$$\begin{aligned} 360^\circ - (105^\circ + 135^\circ + 45^\circ) &= \\ 360^\circ - 285^\circ &= 75^\circ \end{aligned}$$

7.



$$\begin{aligned} 360^\circ - (50^\circ + 135^\circ + 135^\circ) &= \\ 360^\circ - 320^\circ &= 40^\circ \end{aligned}$$

Write **true** or **false**.

8. The sum of the angles in any quadrilateral is  $360^\circ$ . true

9. A rectangle is never a parallelogram. false

10. A square is always a rectangle. true

Use the data from the chart to find the answer.

1. Which of these animals has the most mass at birth?

**gray whale**

2. Which animal has a mass of 3 kg?

**white-tailed deer**

3. What is the mass of a baby golden hamster?

**2 g**

4. What is the mass of a baby porcupine?

**500 g**

5. What is the difference in mass of a baby bison and a baby leopard seal?

**10,000 g**

6. What is the mass of a baby okapi?

**16 kg**

7. Is the mass of a gray whale *greater than* or *less than* the total mass of an American bison and a leopard seal?

**greater than**

8. What is the sum of the masses of a baby porcupine, a baby raccoon, and a baby hamster?

**582 g**

9. Which animal has a mass that is half a baby raccoon's mass?

**eastern cottontail**

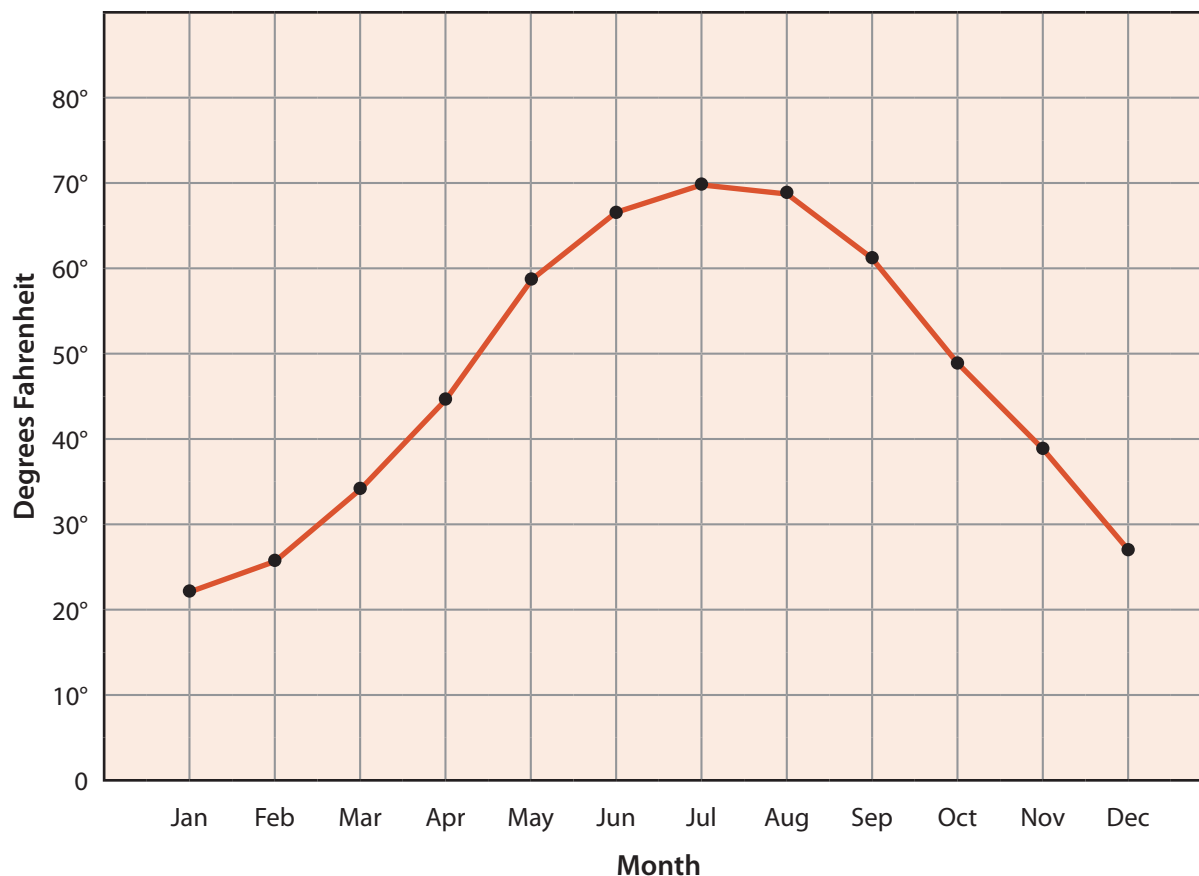
10. Which animal's mass is 14,000 g less than a leopard seal's?

**okapi**

Baby Mammals	
Animal	Average Mass at Birth
American Bison	20,000 g
Eastern Cottontail	40 g
Golden Hamster	2 g
Gray Whale	500,000 g
Leopard Seal	30,000 g
Okapi	16 kg
Porcupine	500 g
Raccoon	80 g
White-tailed Deer	3 kg

Use the data from the line graph to find the answer.

**Average Temperatures in Verona, NY**



1. What data is this graph showing?

**average temperatures for Verona, NY**

2. Which month of the year is the coldest in Verona?

**January**

3. What is the highest average temperature for the year?

**70°F**

4. Which months of the year have temperatures that are usually above 60°F?

**June, July, August, September**

5. Which month has an average temperature of 45°F?

**April**

6. Which month is colder, March or November?

**March**

7. In what three months would the average temperature be around 68°?

**June, July, August**

8. Which months have temperatures in the 20s?

**January, February, December**

9. In which months could you possibly go ice skating outside on a nearby lake?

**January, February, December**

Solve.

$$\begin{array}{r} 1. \quad \$37.16 \\ + \$14.24 \\ \hline \$51.40 \end{array}$$

$$\begin{array}{r} 2. \quad 157.04 \\ + 98.16 \\ \hline 255.20 \end{array}$$

$$\begin{array}{r} 3. \quad 784.32 \\ + 512.75 \\ \hline 1,297.07 \end{array}$$

$$\begin{array}{r} 4. \quad 6.075 \\ - 2.194 \\ \hline 3.881 \end{array}$$

$$\begin{array}{r} 5. \quad 23.60 \\ - 14.28 \\ \hline 9.32 \end{array}$$

$$\begin{array}{r} 6. \quad 94.16 \\ - 8.02 \\ \hline 86.14 \end{array}$$

$$\begin{array}{r} 7. \quad 6.75 \\ \times 4.21 \\ \hline 28.4175 \end{array}$$

$$\begin{array}{r} 8. \quad \$31.15 \\ \times \quad 5 \\ \hline \$155.75 \end{array}$$

$$\begin{array}{r} 9. \quad 58.04 \\ \times 16 \\ \hline 928.64 \end{array}$$

$$\begin{array}{r} 10. \quad \$150.25 \\ \times \quad 3 \\ \hline \$450.75 \end{array}$$

$$11. \quad 9.26 \div 4 = \underline{2.315}$$

$$12. \quad 246.2 \div 8 = \underline{30.775}$$

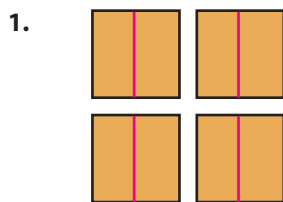
$$13. \quad 556.8 \div 58 = \underline{9.6}$$

14. Jonathan and Joshua together earned \$68.00 mowing yards. Jonathan wants to give all of his half of the money to a mission program that buys blankets for children who do not have any. How much can he donate?  
 $\$68.00 \div 2 = \$34.00$

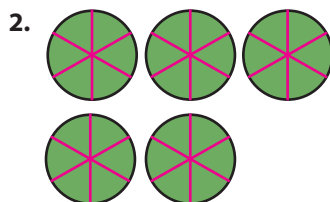
15. Joshua wants to give half of his money for the blankets and put the other half in his church offering. How much can he give to each?  
 $\$34.00 \div 2 = \$17.00$

16. Anne has saved \$55.17. She wants to buy a CD that costs \$14.98 and a book that costs \$12.00. If she buys those items, will she have enough left to buy a \$30.00 computer game?  
 $\text{no; } \$55.17 - (\$14.98 + \$12.00) =$   
 $\$55.17 - \$26.98 = \$28.19$

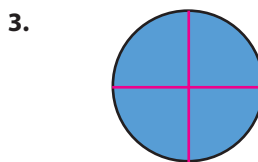
Partition the figures to help you find the quotient.



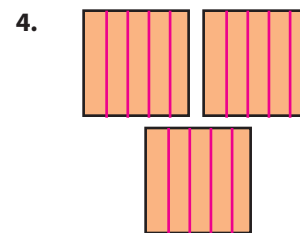
$$4 \div \frac{1}{2} = \underline{8}$$



$$5 \div \frac{5}{6} = \underline{6}$$



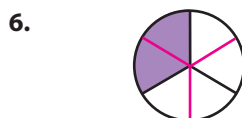
$$1 \div \frac{2}{4} = \underline{2}$$



$$3 \div \frac{3}{5} = \underline{5}$$



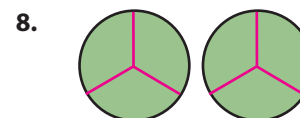
$$\frac{1}{2} \div \frac{1}{8} = \underline{4}$$



$$\frac{1}{3} \div \frac{1}{6} = \underline{2}$$



$$\frac{3}{4} \div \frac{3}{4} = \underline{1}$$



$$2 \div \frac{1}{3} = \underline{6}$$

Solve by multiplying by the reciprocal. *Answers are shown using cancellation.*

9.  $\frac{3}{4} \div \frac{1}{2} = \underline{1\frac{1}{2}}$

$$\frac{3}{4} \times \frac{2}{1} = \frac{3}{2} = 1\frac{1}{2}$$

10.  $2\frac{1}{2} \div \frac{2}{3} = \underline{3\frac{3}{4}}$

$$\frac{5}{2} \times \frac{3}{2} = \frac{15}{4} = 3\frac{3}{4}$$

11.  $3\frac{1}{5} \div \frac{2}{10} = \underline{16}$

$$\frac{16}{5} \times \frac{10}{2} = \frac{16}{1} = 16$$

12.  $10 \div 2\frac{1}{2} = \underline{4}$

$$\frac{10}{1} \times \frac{2}{5} = \frac{4}{1} = 4$$

13.  $4\frac{1}{2} \div 1\frac{3}{4} = \underline{2\frac{4}{7}}$

$$\frac{9}{2} \times \frac{4}{7} = \frac{18}{7} = 2\frac{4}{7}$$

14.  $2\frac{1}{2} \div 1\frac{1}{4} = \underline{2}$

$$\frac{5}{2} \times \frac{4}{5} = \frac{2}{1} = 2$$

Solve.

1.  $(4 + 5) \times 3 - 2 = \underline{25}$   
 $9 \times 3 - 2 =$   
 $27 - 2 = 25$

2.  $5^2 + 3 - 8 = \underline{20}$   
 $(5 \times 5) + 3 - 8 =$   
 $25 + 3 - 8 = 20$

3.  $(35 \div 7) \times 4 + 6 = \underline{26}$   
 $5 \times 4 + 6 =$   
 $20 + 6 = 26$

4.  $89 - 10 + (4 \times 2) = \underline{87}$   
 $89 - 10 + 8 = 87$

5.  $24 \div (6 \times 2) + 8 = \underline{10}$   
 $24 \div 12 + 8 =$   
 $2 + 8 = 10$

6.  $8 \times (8 + 2) + 5 = \underline{85}$   
 $8 \times 10 + 5 =$   
 $80 + 5 = 85$

Solve.

7. 

$n$		
25	25	25

  
 $n = \underline{75}$

8. 

120		
30	30	$n$

  
 $n = \underline{60}$

9. 

150			
25	$n$	50	50

  
 $n = \underline{25}$

Solve. Draw a part-whole model for the equation.

10.  $12 + 12 + n = 36$   
 $n = \underline{12}$

36		
12	12	n

11.  $100 - 75 = n$   
 $n = \underline{25}$

100	
75	n

12.  $n - 5 = 20$   
 $n = \underline{25}$

n	
5	20

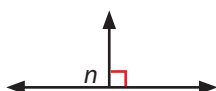
Solve.

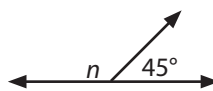
13.  $n \times 25 = 200$   
 $n = \underline{8}$

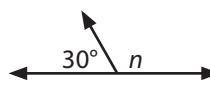
14.  $n \div 4 = 25$   
 $n = \underline{100}$

15.  $\frac{150}{n} = 6$   
 $n = \underline{25}$

Find the measure of the unknown angle.

16.   
 $n + 90^\circ = 180^\circ$   
 $n = \underline{90^\circ}$

17.   
 $n + 45^\circ = 180^\circ$   
 $n = \underline{135^\circ}$

18.   
 $30^\circ + n = 180^\circ$   
 $n = \underline{150^\circ}$



Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

1.  $0.075 < 0.75$

2.  $3.19 < 31.9$

3.  $1.7 > 0.17$

4.  $2.3 = 2.30$

Solve.

$$\begin{array}{r} 5. \quad 2.50 \\ + 3.81 \\ \hline 6.31 \end{array}$$

$$\begin{array}{r} 6. \quad 1.46 \\ + 0.79 \\ \hline 2.25 \end{array}$$

$$\begin{array}{r} 7. \quad 0.84 \\ - 0.30 \\ \hline 0.54 \end{array}$$

$$\begin{array}{r} 8. \quad 7.95 \\ - 2.38 \\ \hline 5.57 \end{array}$$

$$\begin{array}{r} 9. \quad 15.11 \\ + 26.98 \\ \hline 42.09 \end{array}$$

10.  $2.45 + 1.79 = 4.24$

11.  $13.01 - 8.7 = 4.31$

12.  $5.08 - 0.39 = 4.69$

13.  $\$5.00 - \$2.34 = \$2.66$

$$\begin{array}{r} 14. \quad \$15.38 \\ \times \quad 3 \\ \hline \$46.14 \end{array}$$

$$\begin{array}{r} 15. \quad 2.59 \\ \times \quad 5 \\ \hline 12.95 \end{array}$$

$$\begin{array}{r} 16. \quad 18.401 \\ \times \quad 2 \\ \hline 36.802 \end{array}$$

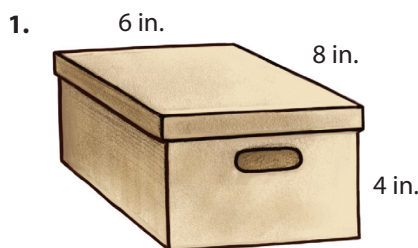
$$\begin{array}{r} 17. \quad 0.952 \\ \times \quad 4 \\ \hline 3.808 \end{array}$$

$$\begin{array}{r} 18. \quad 7.01 \\ \times \quad 6 \\ \hline 42.06 \end{array}$$

19. Kalee earned \$10.00 taking care of her neighbor's puppy. She bought a top for \$8.49 with the money. How much change did she receive?  
 **$\$10.00 - \$8.49 = \$1.51$**

20. Kirk cut a rope into four 7.5-inch sections. He had 6 inches left over. What was the length of the original piece of rope?  
 **$(4 \times 7.5) + 6 =$   
 $30 + 6 = 36 \text{ in.}$**

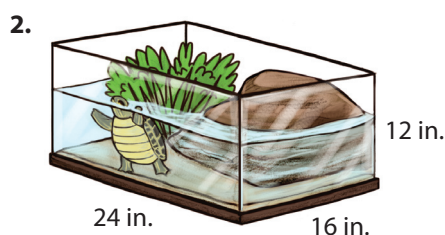
Write an equation. Solve.



What is the perimeter of the box lid?

$$P = \underline{28} \text{ in.}$$

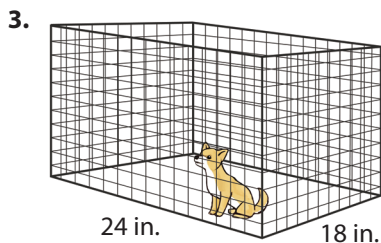
$$(2 \times 6 \text{ in.}) + (2 \times 8 \text{ in.}) = 28 \text{ in.}$$



What is the volume of the tank?

$$V = \underline{4,608} \text{ in.}^3$$

$$\frac{24}{l} \text{ in.} \times \frac{16}{w} \text{ in.} \times \frac{12}{h} \text{ in.} = \underline{4,608} \text{ in.}^3$$



Multiply to find the area of the cage floor.

$$A = \underline{432} \text{ in.}^2$$

$$24 \text{ in.} \times 18 \text{ in.} = 432 \text{ in.}^2$$

4. Wes is preparing to take his dogs to the dog show. He has two cages for the dogs. The floor of the one cage is 20 inches by 18 inches. The floor of the other cage is 48 inches by 24 inches. The van has a 4-foot opening, and the length without the seat is 6 feet. Will both cages fit into the back of the van?

**Yes, both cages will fit.**

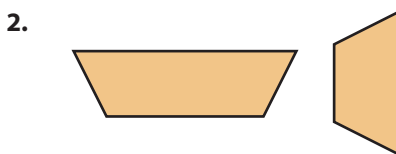
5. The dog show is held at the Morgan Arena. The arena is 150 feet by 300 feet. The dog-agility show needs a space of 100 feet by 100 feet. Can two shows go on at the same time in the Morgan Arena?

**Yes, two shows can go on at the same time.**

Identify the shapes as **congruent** or **similar**.



**congruent**



**similar**



**congruent**



**similar**

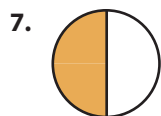


**congruent**



**similar**

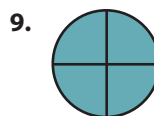
Write the percent of the circle that is shaded.



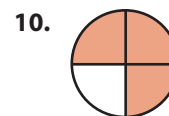
**50%**



**25%**

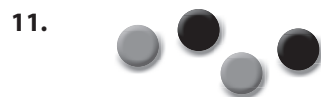


**100%**



**75%**

Write **certain**, **equally likely**, or **impossible** to predict the probability of choosing a black counter.



**equally likely**









**impossible**





**certain**

Use the data from the pictograph to answer the questions.

Favorite Theme Parks	
Cedar Point	
Islands of Adventure	
Holiday World	
Knoebels	
Magic Mountain	

Key
 = 100 people

1. What is the numerical value of ? 100 people

2. What is the numerical value of ? 150 people

3. How many people favor Cedar Point? 600 people

4. Which theme park was the favorite of 300 people?  
Magic Mountain

5. Which two theme parks were favorites of the same number of people?  
Holiday World and Knoebels

Solve.

$$\begin{array}{r} 6. \quad \$124.79 \\ + \$734.36 \\ \hline \$859.15 \end{array}$$

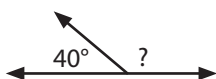
$$\begin{array}{r} 7. \quad \$100.00 \\ - \$85.72 \\ \hline \$14.28 \end{array}$$

$$\begin{array}{r} 8. \quad \$15.25 \\ \times \quad 8 \\ \hline \$122.00 \end{array}$$

$$9. \quad \begin{array}{r} \$8.03 \\ 25 \overline{) \$200.75} \end{array}$$

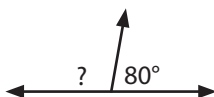
Find the measure of the unknown angle. *Equations may vary.*

1.



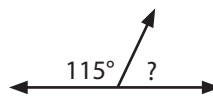
$$180^\circ - 40^\circ = 140^\circ$$

2.



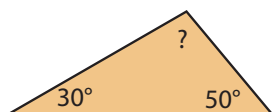
$$180^\circ - 80^\circ = 100^\circ$$

3.



$$180^\circ - 115^\circ = 65^\circ$$

4.



$$180^\circ - (30^\circ + 50^\circ) =$$

$$180^\circ - 80^\circ = 100^\circ$$

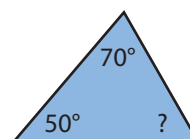
5.



$$180^\circ - (125^\circ + 30^\circ) =$$

$$180^\circ - 155^\circ = 25^\circ$$

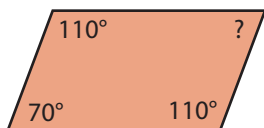
6.



$$180^\circ - (70^\circ + 50^\circ) =$$

$$180^\circ - 120^\circ = 60^\circ$$

7.



$$360^\circ - (110^\circ + 110^\circ + 70^\circ) =$$

$$360^\circ - 290^\circ = 70^\circ$$

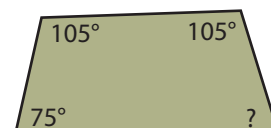
8.



$$360^\circ - (90^\circ + 90^\circ + 90^\circ) =$$

$$360^\circ - 270^\circ = 90^\circ$$

9.



$$360^\circ - (105^\circ + 105^\circ + 75^\circ) =$$

$$360^\circ - 285^\circ = 75^\circ$$

Use mental math to solve.

1.  $34.7 \div 10 = \underline{3.47}$

2.  $67.83 \div 100 = \underline{0.6783}$

3.  $821.3 \div 1000 = \underline{0.8213}$

Rename the denominator as a power of 10. Write the fraction as a decimal.

4.  $\frac{3}{4} = \frac{75}{100} = \underline{0.75}$

5.  $\frac{1}{2} = \frac{5}{10} = \underline{0.5}$

6.  $\frac{1}{4} = \frac{25}{100} = \underline{0.25}$

7.  $\frac{1}{5} = \frac{2}{10} = \underline{0.2}$

Solve.

8.  $5 \overline{)16.25}$

9.  $1.5 \overline{)5.790}$

10.  $0.21 \overline{)4.641}$

11.  $6 \overline{)\$39.54}$

12. 
$$\begin{array}{r} \$4,128.45 \\ + \$2,397.15 \\ \hline \$6,525.60 \end{array}$$

13. 
$$\begin{array}{r} 395.1 \\ \times 4 \\ \hline 1,580.4 \end{array}$$

14. 
$$\begin{array}{r} 158 \\ \times 25 \\ \hline 3,950 \end{array}$$

15.  $2.5 - 1.860 = \underline{0.64}$

16.  $54.3 \div 6 = \underline{9.05}$

Make a factor tree for the number.

Write the prime factorization for the number in exponent form. *Beginning factors may vary.*

1. 81  $3^4$

2. 56  $2^3 \cdot 7$

3. 64  $2^6$

4. 75  $3 \cdot 5^2$

Find the greatest common factor (GCF) by listing the factors of each number.

5. 12 and 18

12: 1, 2, 3, 4, 6, 12

18: 1, 2, 3, 6, 9, 18

GCF: 6

6. 21 and 35

21: 1, 3, 7, 21

35: 1, 5, 7, 35

GCF: 7

7. 36 and 48

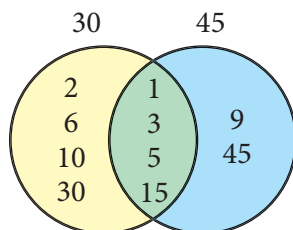
36: 1, 2, 3, 4, 6, 9, 12, 18, 36

48: 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

GCF: 12

Use the Venn diagram to list the factors. Find the GCF.

8. Factors of 30 and 45

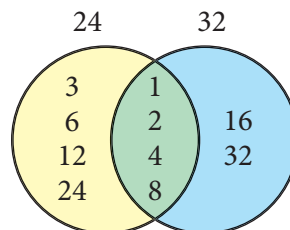


30: 1, 2, 3, 5, 6, 10, 15, 30

45: 1, 3, 5, 9, 15, 45

GCF: 15

9. Factors of 24 and 32



24: 1, 2, 3, 4, 6, 8, 12, 24

32: 1, 2, 4, 8, 16, 32

GCF: 8

Use the GCF to rename the fractions in lowest terms.

10.  $\frac{12}{18} = \frac{2}{3}$

11.  $\frac{21}{35} = \frac{3}{5}$

12.  $\frac{36}{48} = \frac{3}{4}$

13.  $\frac{30}{45} = \frac{2}{3}$

14.  $\frac{24}{32} = \frac{3}{4}$

Use mental math to solve.

1.  $3 \times 40 = \underline{120}$

5.  $100 \times 5.76 = \underline{576}$

9.  $85 \div 100 = \underline{0.85}$

2.  $30 \times 40 = \underline{1,200}$

6.  $1,000 \times 3.187 = \underline{3,187}$

10.  $29.7 \div 10 = \underline{2.97}$

3.  $300 \times 40 = \underline{12,000}$

7.  $217 \div 10 = \underline{21.7}$

11.  $0.835 \div 10 = \underline{0.0835}$

4.  $10 \times 32.1 = \underline{321}$

8.  $385 \div 100 = \underline{3.85}$

12.  $87.32 \div 100 = \underline{0.8732}$

Solve.

13. 
$$\begin{array}{r} 23 \\ 47 \\ 52 \\ + 89 \\ \hline 211 \end{array}$$

14. 
$$\begin{array}{r} \$20.00 \\ - \$15.37 \\ \hline \$4.63 \end{array}$$

15. 
$$\begin{array}{r} 137.50 \\ 21.83 \\ + 0.98 \\ \hline 160.31 \end{array}$$

16. 
$$\begin{array}{r} 4.50 \\ - 0.372 \\ \hline 4.128 \end{array}$$

17. 
$$\begin{array}{r} 382 \\ \times 175 \\ \hline 66,850 \end{array}$$

18. 
$$\begin{array}{r} 401 \\ \times 342 \\ \hline 137,142 \end{array}$$

Solve. Round to the nearest hundredth.

19.  $178 \div 24 \approx \underline{7.42}$

20.  $4,065 \div 31 \approx \underline{131.13}$



Write **Ones**, **Thousands**, **Millions**, or **Billions** to name the underlined period.

1. 237,910,845

**Millions**

2. 819,061,243,755

**Thousands**

3. 4,603,754,103

**Billions**

4. 1,399,057

**Ones**

Round to the greatest place.

5. 89,371

**90,000**

6. 1,430,995

**1,000,000**

7. 7,510,249,631

**8,000,000,000**

8. 349,275,670

**300,000,000**

Use the numbers in the box to write the answer.

320,941,855   39,850,274   321,801,327   41,273,089

9. Write the numbers from *least* to *greatest*. **39,850,274**   **41,273,089**   **320,941,855**   **321,801,327**

10. Which number has a 3 in the Ten Millions place?

**39,850,274**

15. Which numbers round to 300,000,000?

**320,941,855 and 321,801,327**

11. Which numbers have a 1 in the One Millions place?

**321,801,327 and 41,273,089**

16. Which numbers round to 40,000,000?

**39,850,274 and 41,273,089**

12. Which number is even?

**39,850,274**

17. Which numbers have the estimated sum of 80,000,000?

**39,850,274 and 41,273,089**

13. Which number equals  $300,000,000 + 20,000,000 + 1,000,000 + 800,000 + 1,000 + 300 + 20 + 7$ ?

**321,801,327**

18. Which number is divisible by 5?

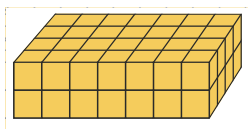
**320,941,855**

14. Which number equals 39 millions, 850 thousands, and 274 ones?

**39,850,274**

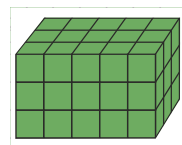
Find the volume of the figure.

1.



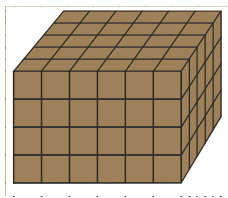
$$\frac{7}{l} \times \frac{4}{w} \times \frac{2}{h} = \underline{56} \text{ units}^3$$

2.



$$\frac{5}{l} \times \frac{3}{w} \times \frac{3}{h} = \underline{45} \text{ units}^3$$

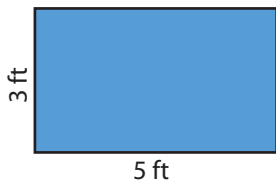
3.



$$\frac{6}{l} \times \frac{5}{w} \times \frac{4}{h} = \underline{120} \text{ units}^3$$

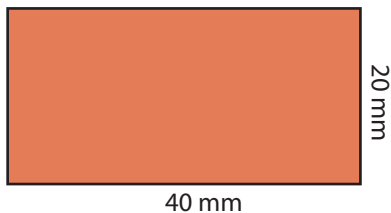
Write a multiplication equation to find the area of the figure.

4.



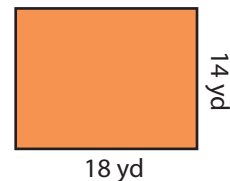
$$\underline{3 \text{ ft} \times 5 \text{ ft} = 15 \text{ ft}^2}$$

5.



$$\underline{40 \text{ mm} \times 20 \text{ mm} = 800 \text{ mm}^2}$$

6.



$$\underline{18 \text{ yd} \times 14 \text{ yd} = 252 \text{ yd}^2}$$

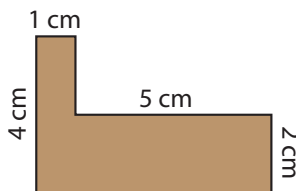
Find the perimeter of the figure.

7.



$$\underline{3 \times 4 \text{ in.} = 12 \text{ in.}}$$

8.



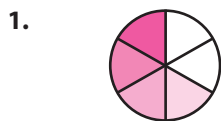
$$\underline{1 \text{ cm} + 2 \text{ cm} + 5 \text{ cm} + 2 \text{ cm} + 6 \text{ cm} + 4 \text{ cm} = 20 \text{ cm}}$$

9.

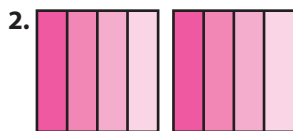


$$\underline{10 \text{ ft} + 12 \text{ ft} + 3 \text{ ft} = 25 \text{ ft}}$$

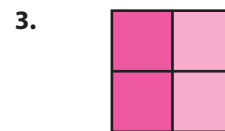
Solve. Shade the picture to illustrate the answer.



$$\frac{4}{6} \div \frac{1}{6} = \underline{4}$$



$$2 \div \frac{1}{4} = \underline{8}$$



$$1 \div \frac{2}{4} = \underline{2}$$

Solve. Write the answer in lowest terms. *Answer is shown using cancellation.*

4.  $8 \div \frac{1}{2} = \underline{16}$   
 $\frac{8}{1} \times \frac{2}{1} = 16$

5.  $2\frac{1}{9} \div 3 = \underline{\frac{19}{27}}$   
 $\frac{19}{9} \times \frac{1}{3} = \frac{19}{27}$

6.  $\frac{4}{6} \div \frac{1}{3} = \underline{2}$   
 $\frac{4}{6} \times \frac{3}{1} = \frac{4}{2} = 2$

7.  $\frac{6}{12} \div \frac{2}{3} = \underline{\frac{3}{4}}$   
 $\frac{6}{12} \times \frac{3}{2} = \frac{3}{4}$

8.  $\frac{3}{4} \div \frac{1}{8} = \underline{6}$   
 $\frac{3}{4} \times \frac{8}{1} = 6$

9.  $\frac{4}{5} \div \frac{1}{5} = \underline{4}$   
 $\frac{4}{5} \times \frac{5}{1} = \frac{4}{1} = 4$

10.  $\frac{5}{6} \div \frac{2}{8} = \underline{3\frac{1}{3}}$   
 $\frac{5}{6} \times \frac{8}{2} = \frac{20}{6} = 3\frac{2}{6} = 3\frac{1}{3}$

11.  $\frac{3}{4} \div 8 = \underline{\frac{3}{32}}$   
 $\frac{3}{4} \times \frac{1}{8} = \frac{3}{32}$

Use the chart to answer the question.

12. Noah prepared half of the trail mix recipe. How many cups of mix did he make?

$$\frac{1\frac{1}{2}}{\text{cereal}} \text{ c} + \frac{\frac{3}{4}}{\text{raisins}} \text{ c} + \frac{1\frac{1}{8}}{\text{candy}} \text{ c} = \underline{3\frac{3}{8}} \text{ c}$$

**Trail Mix Recipe**

3 c of cereal  
 $1\frac{1}{2}$  c of raisins  
 $2\frac{1}{4}$  c of candy

13. Mom doubled the trail mix recipe to take to the church fellowship. How many cups of mix did she make?

$$\frac{6}{\text{cereal}} \text{ c} + \frac{3}{\text{raisins}} \text{ c} + \frac{4\frac{1}{2}}{\text{candy}} \text{ c} = \underline{13\frac{1}{2}} \text{ c}$$

Use the diagram to name the geometric figure.

*Answers may vary but may include A and C; B and E; D and E*

1. two collinear points \_\_\_\_\_

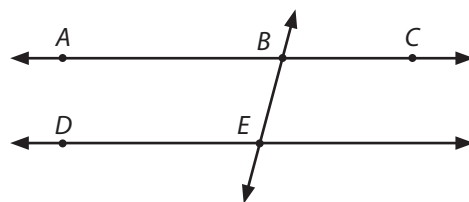
*Answers may vary but may include D, B, and A; B, E, and C*

2. three noncollinear points \_\_\_\_\_

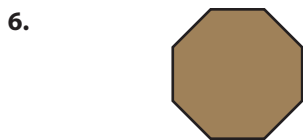
3. three lines  $\overleftrightarrow{AC}$ ,  $\overleftrightarrow{BE}$ , and  $\overleftrightarrow{DE}$

4. a point shared by two lines  $E$  or  $B$

5. two different names for  $\overleftrightarrow{AC}$   $\overleftrightarrow{CA}$ ,  $\overleftrightarrow{AB}$ ,  $\overleftrightarrow{BC}$



Write **hexagon**, **octagon**, **pentagon**, **quadrilateral**, or **triangle** to classify the polygon.



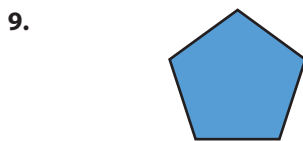
octagon



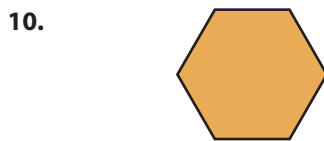
triangle



quadrilateral



pentagon



hexagon

Write **equilateral**, **isosceles**, or **scalene** to classify the triangle.



scalene



equilateral



isosceles

Use the data from the circle graph to answer the question.

1. What is the sum of the percents shown on this graph?

$$60\% + 20\% + 10\% + 5\% + 5\% = 100\%$$

2. Which category shows the greatest percentage of land owned by the federal government?

**forests and wildlife**

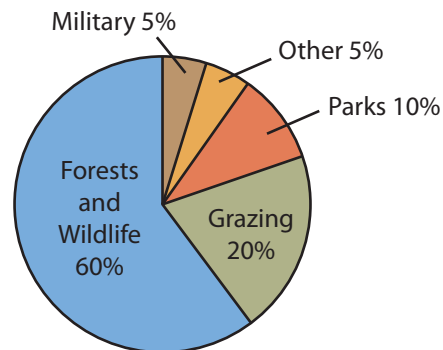
3. What percentage of land owned by the government is used for grazing and parks?

$$20\% + 10\% = 30\%$$

4. Which two categories together make up about one-fourth of federal land?

**military (or other) and grazing**

**Land Owned by the U.S. Government**



Solve.

$$\begin{array}{r} 5. \quad 8,374 \\ \quad 6,985 \\ + \quad 4,876 \\ \hline 20,235 \end{array}$$

$$\begin{array}{r} 6. \quad 45,799 \\ \quad + 86,964 \\ \hline 132,763 \end{array}$$

$$\begin{array}{r} 7. \quad 900,000 \\ \quad - 318,974 \\ \hline 581,026 \end{array}$$

$$\begin{array}{r} 8. \quad 60,005 \\ \quad - 32,057 \\ \hline 27,948 \end{array}$$

Solve. Round the decimal quotient to the nearest hundredth.

$$9. \quad 84 \overline{)420} \quad \text{5}$$

$$10. \quad 56 \overline{)1,975.000} \quad 35.267 \approx 35.27$$

Write the numerical expression for the word phrase. Solve.

1. 15 take away 2

$$15 - 2 = 13$$

2. 1 more than a dozen

$$12 + 1 = 13$$

3. the product of 4 and 5

$$4 \times 5 = 20$$

4. 6 to the second power

$$6^2 = 36$$

5. the sum of 14 and 16

$$14 + 16 = 30$$

6. one-half of ten

$$\frac{1}{2} \times 10 = \frac{1}{2} \times \frac{10}{1} = \frac{5}{1} = 5$$

7. seven times three

$$7 \times 3 = 21$$

8. the difference between 3 and 8

$$8 - 3 = 5$$

Write an algebraic expression for the word phrase.

9. 4 times a number  $4n$

12. a number divided by 10  $n \div 10$  or  $\frac{n}{10}$

10.  $\frac{1}{2}$  of a number  $\frac{1}{2}n$

13. 20 more than a number  $n + 20$

11. 6 less than a number  $n - 6$

14. a number to the second power  $n^2$

Evaluate the expression. Let  $n = 2$ . Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

15.  $7 + 5$   $>$   $n \cdot 5$

16.  $\frac{18}{n}$   $<$   $9 + 9$

17.  $3n$   $=$   $4 + 2$

Complete the table using the given values to evaluate the expressions.

18.

$x$	$x + 3$
7	10
11	14

19.

$a$	$a \cdot 4$
3	12
6	24

20.

$n$	$12 \div n$
3	4
6	2

Solve.

$$\begin{array}{r} 1. \quad \$3.47 \\ + \$1.62 \\ \hline \$5.09 \end{array}$$

$$\begin{array}{r} 2. \quad 45,816 \\ + 21,437 \\ \hline 67,253 \end{array}$$

$$\begin{array}{r} 3. \quad 86,045 \\ + 19,057 \\ \hline 105,102 \end{array}$$

$$\begin{array}{r} 4. \quad 832 \\ + 659 \\ \hline 1,491 \end{array}$$

$$\begin{array}{r} 5. \quad 371 \\ \quad 422 \\ + 870 \\ \hline 1,663 \end{array}$$

$$\begin{array}{r} 6. \quad 419 \\ \quad 27 \\ + 132 \\ \hline 578 \end{array}$$

$$\begin{array}{r} 7. \quad 15 \\ \quad 32 \\ \quad 18 \\ + 604 \\ \hline 669 \end{array}$$

$$\begin{array}{r} 8. \quad 38 \\ + 44 \\ \hline 82 \end{array}$$

$$\begin{array}{r} 9. \quad \$0.78 \\ \quad \$2.52 \\ \quad \$0.07 \\ + \$1.18 \\ \hline \$4.55 \end{array}$$

$$\begin{array}{r} 10. \quad 517,053 \\ + 13,267 \\ \hline 530,320 \end{array}$$

$$\begin{array}{r} 11. \quad 60,984 \\ + 321,786 \\ \hline 382,770 \end{array}$$

$$\begin{array}{r} 12. \quad 417,035 \\ + 562,809 \\ \hline 979,844 \end{array}$$

$$13. \quad 2.135 + 41.03 = \underline{43.165}$$

$$14. \quad \$39.76 + \$124.01 = \underline{\$163.77}$$

$$15. \quad 0.278 + 1.93 = \underline{2.208}$$

$$16. \quad 2\frac{1}{2} + 1\frac{3}{4} = \underline{4\frac{1}{4}}$$

Solve.

$$\begin{array}{r} 1. \quad \$67.48 \\ - \$17.70 \\ \hline \$49.78 \end{array}$$

$$\begin{array}{r} 2. \quad 37,604 \\ - 28,442 \\ \hline 9,162 \end{array}$$

$$\begin{array}{r} 3. \quad 525,004 \\ - 317,423 \\ \hline 207,581 \end{array}$$

$$\begin{array}{r} 4. \quad 719,604 \\ - 385,260 \\ \hline 334,344 \end{array}$$

$$\begin{array}{r} 5. \quad 8,042 \\ - 5,609 \\ \hline 2,433 \end{array}$$

$$\begin{array}{r} 6. \quad 45,697 \\ - 13,806 \\ \hline 31,891 \end{array}$$

$$\begin{array}{r} 7. \quad 200,345 \\ - 124,670 \\ \hline 75,675 \end{array}$$

$$\begin{array}{r} 8. \quad 63,089 \\ - 20,428 \\ \hline 42,661 \end{array}$$

$$\begin{array}{r} 9. \quad 6,839 \\ - 3,860 \\ \hline 2,979 \end{array}$$

$$\begin{array}{r} 10. \quad 747,222 \\ - 648,203 \\ \hline 99,019 \end{array}$$

$$\begin{array}{r} 11. \quad 832,587 \\ - 604,388 \\ \hline 228,199 \end{array}$$

$$\begin{array}{r} 12. \quad 783,054 \\ - 332,867 \\ \hline 450,187 \end{array}$$

$$13. \quad \$5.00 - \$1.32 = \underline{\$3.68}$$

$$14. \quad 14.03 - 2.5 = \underline{11.53}$$

$$15. \quad 6\frac{1}{8} - 3\frac{1}{2} = \underline{2\frac{5}{8}}$$

$$16. \quad 89 - 15.75 = \underline{73.25}$$

$$17. \quad 2,000 - 1,947 = \underline{53}$$

$$18. \quad \$13.00 - \$1.98 = \underline{\$11.02}$$



Write the missing number or variable. Name the property used.

1.  $(5 \cdot 3) \cdot 4 = 5 \cdot (\underline{3} \cdot 4)$

Associative Property

2.  $a + b = \underline{b} + a$

Commutative Property

3.  $3 + 2a = 2a + \underline{3}$

Commutative Property

Simplify the expression.

4.  $x + 5x$  6x

5.  $x + 8 + x$  2x + 8

6.  $x \cdot 4 \cdot 5$  20x

Solve the equation using the inverse operation.

7.  $a + 10 = 25$

$a = \underline{15}$

8.  $3 \cdot n = 18$

$n = \underline{6}$

9.  $12 - x = 7$

$x = \underline{5}$

10.  $\frac{x}{3} = 9$

$x = \underline{27}$

11.  $8n = 32$

$n = \underline{4}$

12.  $15 \div c = 3$

$c = \underline{5}$

Complete the table.

13.

$x$	$4x$
5	20
7	28
10	40

14.

$x$	$x^2$
2	4
4	16
6	36

15.

$x$	$3x - 1$
3	8
5	14
7	20

Solve.

$$\begin{array}{r} 1. \quad 324 \\ \times 12 \\ \hline 3,888 \end{array}$$

$$\begin{array}{r} 2. \quad 450 \\ \times 312 \\ \hline 140,400 \end{array}$$

$$\begin{array}{r} 3. \quad 12,475 \\ \times 20 \\ \hline 249,500 \end{array}$$

$$4. \quad 3 \times \$1.75 = \underline{\$5.25}$$

$$\begin{array}{r} 5. \quad 835 \\ \times 15 \\ \hline 12,525 \end{array}$$

$$\begin{array}{r} 6. \quad 513 \\ \times 142 \\ \hline 72,846 \end{array}$$

$$\begin{array}{r} 7. \quad \$15.75 \\ \times 4 \\ \hline \$63.00 \end{array}$$

$$8. \quad 2.4 \times 3.7 = \underline{8.88}$$

$$\begin{array}{r} 9. \quad 1,280 \\ \times 21 \\ \hline 26,880 \end{array}$$

$$\begin{array}{r} 10. \quad 831 \\ \times 123 \\ \hline 102,213 \end{array}$$

$$\begin{array}{r} 11. \quad 0.03 \\ \times 0.21 \\ \hline 0.0063 \end{array}$$

$$12. \quad 8\frac{1}{2} \times 2\frac{1}{3} = \underline{19\frac{5}{6}}$$

$$\begin{array}{r} 13. \quad 238 \\ \times 34 \\ \hline 8,092 \end{array}$$

$$\begin{array}{r} 14. \quad 452 \\ \times 171 \\ \hline 77,292 \end{array}$$

$$\begin{array}{r} 15. \quad 2.53 \\ \times 0.04 \\ \hline 0.1012 \end{array}$$

$$16. \quad \frac{3}{5} \cdot 3 = \underline{1\frac{4}{5}}$$

$$\begin{array}{r} 17. \quad 507 \\ \times 42 \\ \hline 21,294 \end{array}$$

$$\begin{array}{r} 18. \quad 324 \\ \times 214 \\ \hline 69,336 \end{array}$$

$$\begin{array}{r} 19. \quad \$21.48 \\ \times 5 \\ \hline \$107.40 \end{array}$$

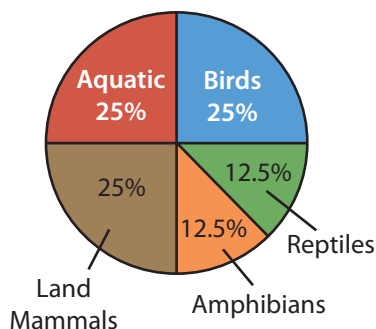
$$20. \quad \frac{3}{4} \cdot \frac{2}{3} = \underline{\frac{1}{2}}$$

Use the data from the chart and the graphs to answer the questions.

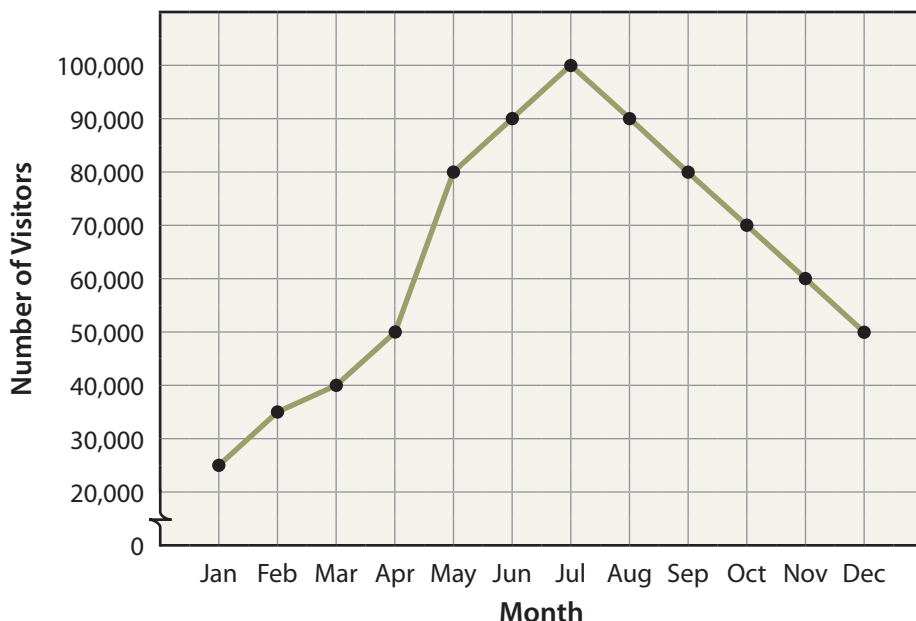
**Zoo Admission**

Adults	\$11.00
Children 6–18 years	\$8.00
Senior Citizens	\$8.00
Family Yearly Pass	\$50.00
Children 5 and under	Free

**Zoo Exhibits**



**Visitors in 2011**



1. Which graph shows a change in the number of visitors over time?

***the Visitors in 2011 line graph***

5. Which graph gives basic information about zoo admission costs?

***the Zoo Admission chart***

2. Which graph tells how many people visited the zoo in 2011?

***the Visitors in 2011 line graph***

3. Which graph compares parts to a whole?

***the Zoo Exhibits circle graph***

4. The Zoo Exhibits circle graph represents 800 zoo animals. How many animals are land mammals? How many are reptiles?

***200 land mammals; 100 reptiles***

6. The Anderson family bought tickets to spend a day at the zoo. How much money did they spend on tickets for Mr. and Mrs. Anderson, 3 school-age boys, and Grandma Larson?

***$(2 \times \$11.00) + (4 \times \$8.00) = \$54.00$***

Solve. Annex zeros if needed. Round decimal answers to the nearest hundredth.

1.  $8 \overline{)72}^9$

2.  $9 \overline{)54}^6$

3.  $7 \overline{)56}^8$

4.  $8 \overline{)64}^8$

5.  $6 \overline{)42}^7$

6.  $5 \overline{)60}^{12}$

7.  $21 \div 7 = \underline{3}$

8.  $32 \div 8 = \underline{4}$

9.  $81 \div 9 = \underline{9}$

10.  $50 \div 10 = \underline{5}$

11.  $49 \div 7 = \underline{7}$

12.  $36 \div 12 = \underline{3}$

13.  $7 \overline{)154}^{22}$

14.  $9 \overline{)8,362.000}^{929.111 \approx 929.11}$

15.  $6 \overline{)4,032}^{672}$

16.  $5 \overline{)\$15.360}^{\$3.072 \approx \$3.07}$

17.  $4 \overline{)4.20}^{1.05}$

18.  $21 \overline{)3,407.000}^{162.238 \approx 162.24}$

19.  $132 \overline{)13,465.000}^{102.007 \approx 102.01}$

20.  $4.1 \overline{)1,484.2}^{362}$

21.  $231 \overline{)23,573.000}^{102.047 \approx 102.05}$

Solve.

- Michelle purchased a 5.07-ounce tube of oil paint for \$5.10. What was the cost per ounce? (Round to the nearest cent.) **\$1.01 per ounce**
- A large bottle of soft drink holds 67.6 ounces and costs \$1.39. What is the price per ounce? (Round to the nearest cent.) **\$0.02 per ounce**
- A car traveled 158.75 miles in 2.5 hours. What was the average speed in miles per hour? **63.5 mph**
- Mrs. Patton purchased 12.5 pounds of chicken on sale. She spent \$11.13. What was the cost per pound? (Round to the nearest cent.) **\$0.89 per pound**

Use the prices of the books to solve.

- Which book costs the most?

**The Big Book of Brain Games**

- Which two different books could you buy with twenty-five dollars?

**The Challenge Sudoku and The Quest Word Games**

$$\$13.98 + \$9.95 = \$23.93$$

- How much money would you need to purchase the puzzle and riddle book and the word game book?

$$\$19.99 + \$9.95 = \$29.94$$

- What is the cost of three brain game books?

$$3 \times \$22.95 = \$68.85$$

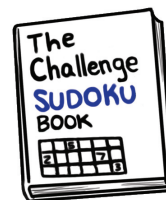
- You want to buy the brain game book and two other books. You have \$50.00. Which two other books can you purchase?

**The Challenge Sudoku and The Quest Word Games;**

$$\$22.95 + \$13.98 + \$9.95 = \$46.88$$



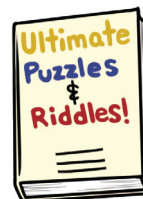
\$22.95



\$13.98



\$9.95



\$19.99

Evaluate the expression. Let  $n = 6$ .

$$1. (1.3 \cdot n) - 4$$

$$(1.3 \cdot 6) - 4 =$$

$$7.8 - 4 = 3.8$$

$$2. 75 - 7n$$

$$75 - (7 \cdot 6) =$$

$$75 - 42 = 33$$

$$3. 5n \div 2$$

$$(5 \cdot 6) \div 2 =$$

$$30 \div 2 = 15$$

Simplify the expression.

$$4. 4(3x) = 12x$$

$$5. 7(n + 4) = 7n + 28$$

$$6. 8y + (3y + 4) = 11y + 4$$

Write the algebraic expression for the sentence.

$$7. \text{The fence is 7 times longer than the gate. } 7g$$

$$8. \text{Sarah ran 2 miles more than Abby. } m + 2$$

$$9. \text{David popped 5 balloons. } b - 5$$

$$10. \text{Josh is 3 years older than Aaron. } a + 3$$

Solve.

$$11. 4a = 64 \quad a = 16$$

$$12. k + 7 = 48 \quad k = 41$$

$$13. \frac{x}{7} = 56 \quad x = 392$$

$$14. b - 6.4 = 1.8 \quad b = 8.2$$

$$15. a \div 16 = 4 \quad a = 64$$

$$16. 20r = 400 \quad r = 20$$

Complete the table.

1.

meter	millimeter
1	1000
4	<b>4000</b>
<b>2</b>	2000
9	<b>9000</b>

2.

gram	kilogram
1000	1
<b>3000</b>	3
<b>4000</b>	4
5000	<b>5</b>

3.

milliliter	liter
1000	1
5000	<b>5</b>
<b>7000</b>	7
8000	<b>8</b>

Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

4. 3 m  $>$  300 mm

5. 8000 g  $=$  8 kg

6. 2859 mL  $<$  4 L

Choose the best unit of measurement.

7.

Capacity	
a bottle of water	
10 mL	<b>1 L</b>
a mug of cocoa	
<b>250 mL</b>	25 L
water in a bathtub	
150 mL	<b>150 L</b>

8.

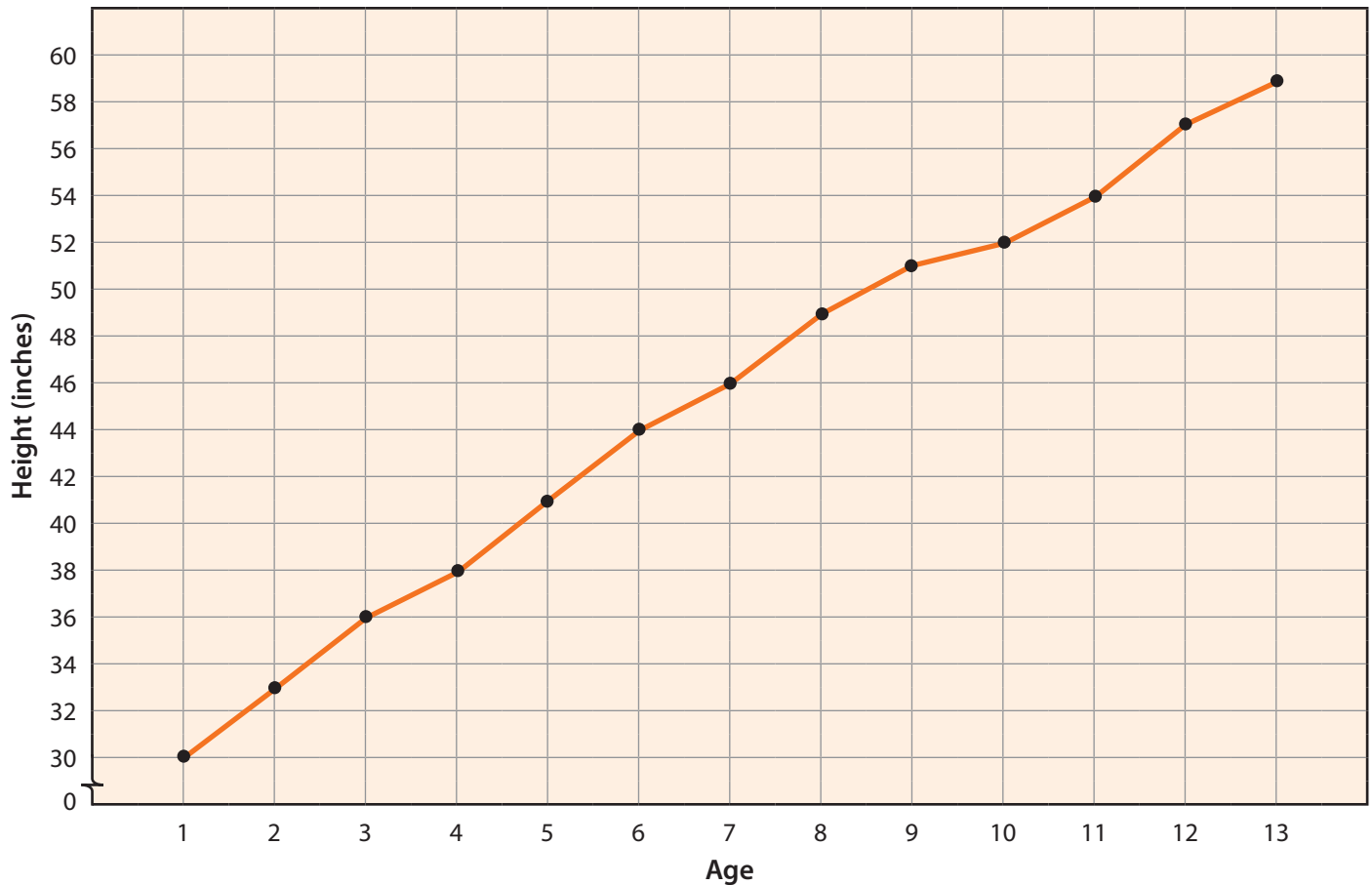
Mass	
a dog	
<b>20 kg</b>	20 g
four jellybeans	
4 kg	<b>4 g</b>
a chocolate chip cookie	
1 kg	<b>10 g</b>

9.

Temperature	
swimming in the ocean	
<b>30°C</b>	70°C
normal body temperature	
<b>37°C</b>	98°C
boiling water	
0°C	<b>100°C</b>

Use the data from the graph to answer the questions.

**Claire's Height**



Mrs. West recorded Claire's height on each birthday. Claire took the measurements and put them in a graph form.

1. What kind of graph did Claire make?

*a line graph*

2. Why does the line increase rather than decrease?

*because Claire grew taller each year*

3. How tall was Claire at age 1? *30 in.*

4. How many inches taller was Claire at age 5 than at age 1?

*41 - 30 = 11 in.*

5. Between which two years did Claire grow only 1 inch taller?

*9-10*

6. How tall was Claire at age 13? *59 in.*

7. How many inches did Claire gain between ages 6 and 7?

*2 in.*



Solve.

$$\begin{array}{r} 1. \quad 4.5 \\ \times 6.7 \\ \hline 30.15 \end{array}$$

$$\begin{array}{r} 2. \quad 7.18 \\ \times 2.9 \\ \hline 20.822 \end{array}$$

$$\begin{array}{r} 3. \quad 442 \\ \times 71 \\ \hline 31,382 \end{array}$$

$$\begin{array}{r} 4. \quad 975 \\ \times 48 \\ \hline 46,800 \end{array}$$

$$5. \quad 5 \overline{) \$23.40} \quad \text{\textcolor{red}{\$4.68}}$$

$$6. \quad 47 \overline{) 5,076} \quad \text{\textcolor{red}{108}}$$

$$7. \quad 31 \overline{) 7,626} \quad \text{\textcolor{red}{246}}$$

$$8. \quad 206 \overline{) 5,150} \quad \text{\textcolor{red}{25}}$$

$$\begin{array}{r} 9. \quad \$6,932.37 \\ - \$5,331.97 \\ \hline \text{\textcolor{red}{\$1,600.40}} \end{array}$$

$$\begin{array}{r} 10. \quad 20,320 \\ - 14,410 \\ \hline \text{\textcolor{red}{5,910}} \end{array}$$

$$\begin{array}{r} 11. \quad \$9,875 \\ - \$5,769 \\ \hline \text{\textcolor{red}{\$4,106}} \end{array}$$

$$\begin{array}{r} 12. \quad 469.549 \\ - 203.895 \\ \hline \text{\textcolor{red}{265.654}} \end{array}$$

$$\begin{array}{r} 13. \quad 38.472 \\ \quad 5.391 \\ + \quad 2.0 \\ \hline \text{\textcolor{red}{45.863}} \end{array}$$

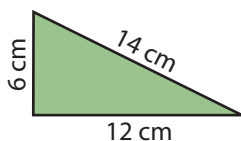
$$\begin{array}{r} 14. \quad \$169.95 \\ \quad \$139.49 \\ + \$ \quad 39.99 \\ \hline \text{\textcolor{red}{\$349.43}} \end{array}$$

$$15. \quad 31,998 + 543,477 = \text{\textcolor{red}{575,475}}$$

$$16. \quad 6,003 + 6,422 = \text{\textcolor{red}{12,425}}$$

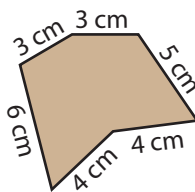
Find the perimeter of the figure.

1.



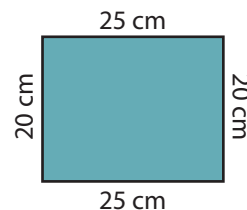
$$14\text{ cm} + 12\text{ cm} + 6\text{ cm} = 32\text{ cm}$$

2.



$$3\text{ cm} + 3\text{ cm} + 5\text{ cm} + 4\text{ cm} + 6\text{ cm} = 25\text{ cm}$$

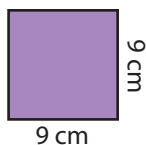
3.



$$25\text{ cm} + 20\text{ cm} + 25\text{ cm} + 20\text{ cm} = 90\text{ cm}$$

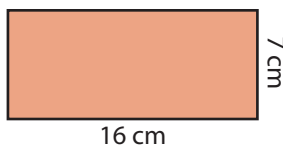
Find the area of the figure.

4.



$$9\text{ cm} \times 9\text{ cm} = 81\text{ cm}^2$$

5.



$$16\text{ cm} \times 7\text{ cm} = 112\text{ cm}^2$$

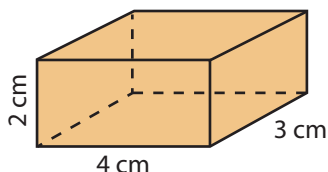
6.



$$21\text{ cm} \times 3\text{ cm} = 63\text{ cm}^2$$

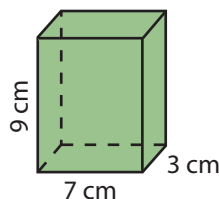
Find the volume of the figure.

7.



$$4\text{ cm} \times 3\text{ cm} \times 2\text{ cm} = 24\text{ cm}^3$$

8.



$$7\text{ cm} \times 3\text{ cm} \times 9\text{ cm} = 189\text{ cm}^3$$

Solve.

9. Jerry made a square raised flower bed for his mother using 20-foot boards. What is the area of the flower bed?

$$20\text{ ft} \times 20\text{ ft} = 400\text{ ft}^2$$

10. Amy built a rectangular birdhouse for bluebirds. It is 13 inches high, 5.5 inches wide, and 5 inches long. What is the volume of the birdhouse?

$$13\text{ in.} \times 5.5\text{ in.} \times 5\text{ in.} = 357.5\text{ in.}^3$$

11. Sammy and Sally have a rectangular pool that is 6 feet long and 3 feet wide. What is its perimeter?

$$(2 \times 6\text{ ft}) + (2 \times 3\text{ ft}) = 18\text{ ft}$$

Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

1.  $1.70 < 1.71$

2.  $0.8 = 0.80$

3.  $8.465 < 8.645$

4.  $0.051 < 0.052$

5.  $1.60 > 0.16$

6.  $0.653 < 0.66$

7.  $1.874 < 18.74$

8.  $3.09 > 3.009$

Solve. *Equations may vary.*

9. What is the cost of 6 pounds of chicken if chicken is \$2.89 per pound?  
 $6 \times \$2.89 = \$17.34$

10. Kerri bought a two-cheeseburger meal including a drink and fries for \$3.79. Cheeseburgers normally cost \$0.99, and drinks are \$1.39. Fries are \$0.79. How much money did she save by buying the meal instead of buying the two burgers, the fries, and the drink separately?

$$(2 \times \$0.99) + \$1.39 + \$0.79 = \$4.16;$$

$$\$4.16 - \$3.79 = \$0.37$$

Write an equation. Solve.

11. Dad used \$10.00 to purchase a drink that cost \$2.89.  $\underline{\$10.00 - \$2.89 = \$7.11}$

12. five tenths less than three and twenty-five hundredths  $\underline{3.25 - 0.5 = 2.75}$

13. thirteen hundredths more than thirteen thousandths  $\underline{0.013 + 0.13 = 0.143}$

14. the price of 1 can of beets when the price for five cans is \$2.00  $\underline{\$2.00 \div 5 = \$0.40 \text{ each}}$

15. Estimate the product of 57 and 236.  $\underline{60 \times 200 = 12,000}$

Solve. Rename to lowest terms. *Answer is shown using cancellation.*

$$1. 4 \times \frac{4}{5} = \underline{\frac{16}{5} = 3 \frac{1}{5}}$$

$$8. 4 \times 2 \frac{5}{6} = \underline{11 \frac{1}{3}}$$

$$\frac{4}{1} \times \frac{17}{6} = \frac{34}{3} = 11 \frac{1}{3}$$

$$15. \frac{5}{7} \div \frac{1}{6} = \underline{4 \frac{2}{7}}$$

$$\frac{5}{7} \times \frac{6}{1} = \frac{30}{7} = 4 \frac{2}{7}$$

$$2. 6 \times \frac{2}{3} = \underline{\frac{4}{1} = 4}$$

$$9. 3 \times 2 \frac{1}{10} = \underline{6 \frac{3}{10}}$$

$$\frac{63}{10} = 6 \frac{3}{10}$$

$$16. \frac{3}{4} \div \frac{3}{8} = \underline{2}$$

$$\frac{3}{4} \times \frac{8}{3} = \frac{24}{12} = 2$$

$$3. 2 \times \frac{5}{12} = \underline{\frac{5}{6}}$$

$$10. 7 \times 1 \frac{3}{10} = \underline{9 \frac{1}{10}}$$

$$\frac{91}{10} = 9 \frac{1}{10}$$

$$17. \frac{8}{12} \div \frac{2}{12} = \underline{4}$$

$$\frac{8}{12} \times \frac{12}{2} = \frac{48}{6} = 8$$

$$4. \frac{1}{4} \times \frac{2}{3} = \underline{\frac{1}{6}}$$

$$11. 2 \div \frac{1}{6} = \underline{12}$$

$$\frac{2}{1} \times \frac{6}{1} = \frac{12}{1} = 12$$

$$18. \frac{3}{8} \div \frac{1}{2} = \underline{\frac{3}{4}}$$

$$\frac{3}{8} \times \frac{2}{1} = \frac{6}{8} = \frac{3}{4}$$

$$5. \frac{3}{5} \times \frac{1}{3} = \underline{\frac{1}{5}}$$

$$12. 1 \div \frac{3}{12} = \underline{4}$$

$$\frac{1}{1} \times \frac{12}{3} = \frac{12}{3} = 4$$

$$19. \frac{1}{4} \div \frac{3}{5} = \underline{\frac{5}{12}}$$

$$\frac{1}{4} \times \frac{5}{3} = \frac{5}{12}$$

$$6. 9 \times \frac{5}{7} = \underline{6 \frac{3}{7}}$$

$$\frac{45}{7} = 6 \frac{3}{7}$$

$$13. 4 \div \frac{2}{3} = \underline{6}$$

$$\frac{4}{1} \times \frac{3}{2} = \frac{12}{2} = 6$$

$$20. \frac{4}{6} \div 4 = \underline{\frac{1}{6}}$$

$$\frac{4}{6} \times \frac{1}{4} = \frac{4}{24} = \frac{1}{6}$$

$$7. \frac{4}{9} \times \frac{3}{8} = \underline{\frac{1}{6}}$$

$$14. 3 \div \frac{1}{2} = \underline{6}$$

$$\frac{3}{1} \times \frac{2}{1} = \frac{6}{1} = 6$$

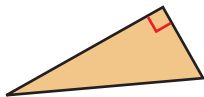
$$21. 2 \div \frac{1}{2} = \underline{4}$$

$$\frac{2}{1} \times \frac{2}{1} = \frac{4}{1} = 4$$

Classify the triangle according to its angles: **acute**, **right**, or **obtuse**.

Classify the triangle according to the length of its sides: **equilateral**, **isosceles**, or **scalene**.

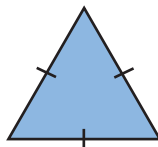
1.



**right**

**scalene**

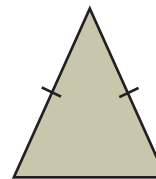
2.



**acute**

**equilateral**

3.

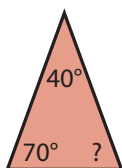


**acute**

**isosceles**

Find the unknown angle. **Equations may vary.**

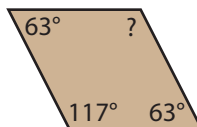
4.



$$180^\circ - (70^\circ + 40^\circ) =$$

$$180^\circ - 110^\circ = 70^\circ$$

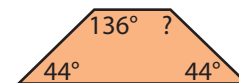
5.



$$360^\circ - (63^\circ + 63^\circ + 117^\circ) =$$

$$360^\circ - 243^\circ = 117^\circ$$

6.

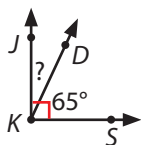


$$360^\circ - (44^\circ + 44^\circ + 136^\circ) =$$

$$360^\circ - 224^\circ = 136^\circ$$

Find the measure of the complementary or supplementary angle. **Equations may vary.**

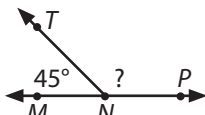
7.



$$\angle JKD = \underline{25^\circ}$$

$$90^\circ - 65^\circ = 25^\circ$$

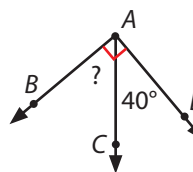
8.



$$\angle TNP = \underline{135^\circ}$$

$$180^\circ - 45^\circ = 135^\circ$$

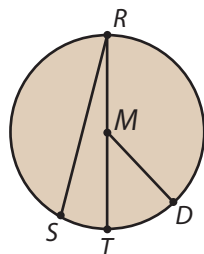
9.



$$\angle BAC = \underline{50^\circ}$$

$$90^\circ - 40^\circ = 50^\circ$$

Use the circle to answer the questions.



10. Name the circle. **circle M**

11. Name the diameter.  **$\overline{RT}$  or  $\overline{TR}$**

12. Name a chord that is not a diameter.  **$\overline{RS}$  or  $\overline{SR}$**

13. Name a radius.  **$\overline{MD}$ ,  $\overline{MT}$ , or  $\overline{MR}$**

Rename the denominator as a power of 10. Write the fraction as a decimal.

1.  $\frac{3}{5} = \frac{6}{10} = 0.6$

2.  $\frac{1}{4} = \frac{25}{100} = 0.25$

3.  $\frac{1}{2} = \frac{5}{10} = 0.5$

4.  $\frac{12}{25} = \frac{48}{100} = 0.48$

Solve. Use a bar to mark the repeating digits.

5.  $3 \overline{)2.0}$

6.  $6 \overline{)139.50}$

7.  $6 \overline{)550.0}$

8.  $0.12 \overline{)1.5800}$

Solve. *Equations may vary.*

9. Karen's family vacationed at the beach. The first two days the motel charged them \$89.95 each night. The rates went up to \$107.55 on Friday and Saturday nights. How much did her family spend on the motel for four nights?

$$(2 \times \$89.95) + (2 \times \$107.55) = \\ \$179.90 + \$215.10 = \$395.00$$

10. On Friday, Karen's family went to a fish fry on the beach. Her dad and mom bought 2 adult plates for \$7.95 each and 3 child plates for \$4.95 each. How much did her family spend on that meal?

$$(2 \times \$7.95) + (3 \times \$4.95) = \\ \$15.90 + \$14.85 = \$30.75$$

Complete the table using the given values to evaluate the expressions.

1.

$b$	$5b + 8$
6	<b>38</b>
12	<b>68</b>
29	<b>153</b>
45	<b>233</b>

2.

$x$	$\frac{x}{4} - 2$
8	<b>0</b>
24	<b>4</b>
48	<b>10</b>
64	<b>14</b>

3.

$n$	$6 + n^2$
4	<b>22</b>
12	<b>150</b>
16	<b>262</b>
20	<b>406</b>

Evaluate the expression. Let  $m = 4$ .

4.  $5m - 7 = \underline{\mathbf{13}}$

5.  $(6 + 2m) - 3 = \underline{\mathbf{11}}$

6.  $3 + m + 6 = \underline{\mathbf{13}}$

7.  $\frac{m}{2} + 7 = \underline{\mathbf{9}}$

8.  $m + 7 - 6 = \underline{\mathbf{5}}$

9.  $105 - 12m = \underline{\mathbf{57}}$

Simplify the expression.

10.  $4(8x) = \underline{\mathbf{32x}}$

11.  $9 + (6 + 2x) = \underline{\mathbf{15 + 2x}}$

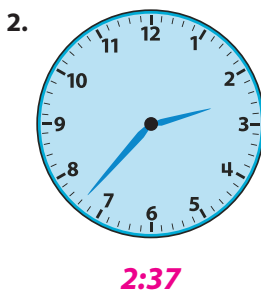
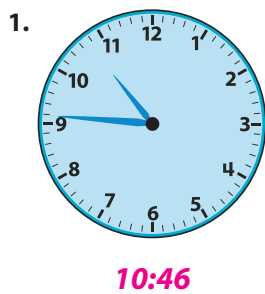
12.  $8x + (2 + 4x) = \underline{\mathbf{12x + 2}}$

13.  $6(n + 2) = \underline{\mathbf{6n + 12}}$

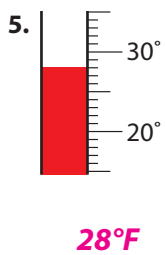
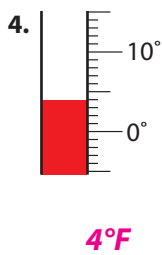
14.  $5(4x + 3.1) = \underline{\mathbf{20x + 15.5}}$

15.  $9b + 3b + 12b = \underline{\mathbf{24b}}$

Write the time.



Write the temperature in °F.



6. freezing point of water 32°F

7. normal body temperature 98.6°F

8. boiling point of water 212°F

Complete the table.

9.

pound	ounce
1	16
4	64
7	112
10	160

10.

inch	feet
12	1
48	4
72	6
108	9

11.

ton	pound
1	2,000
2	4,000
6	12,000
8	16,000

12.

yard	inch
1	36
4	144
6	216
7	252



Write the ordered pair for the point.

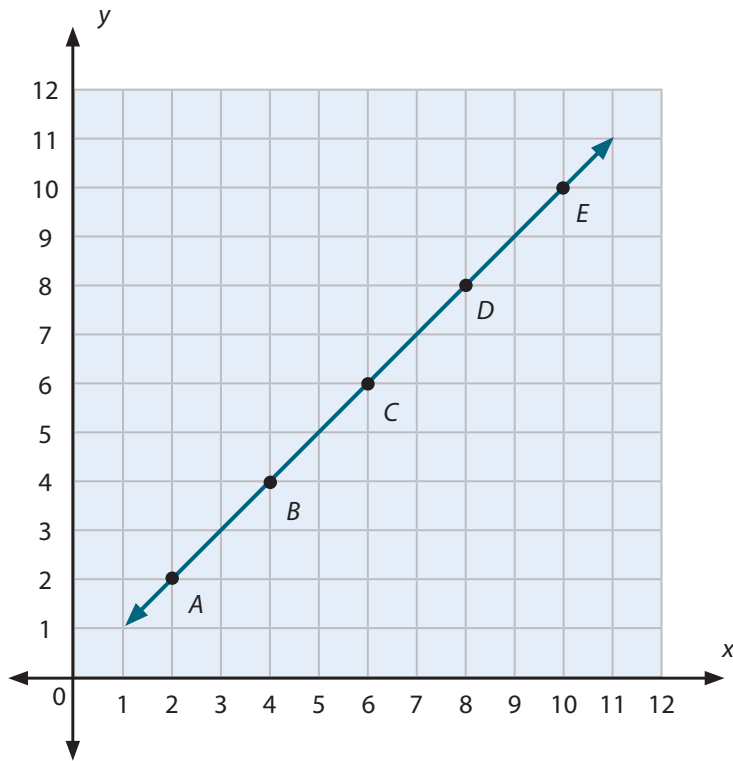
1. A (2,2)

2. B (4,4)

3. C (6,6)

4. D (8,8)

5. E (10,10)



Name the point on the graph represented by the ordered pair.

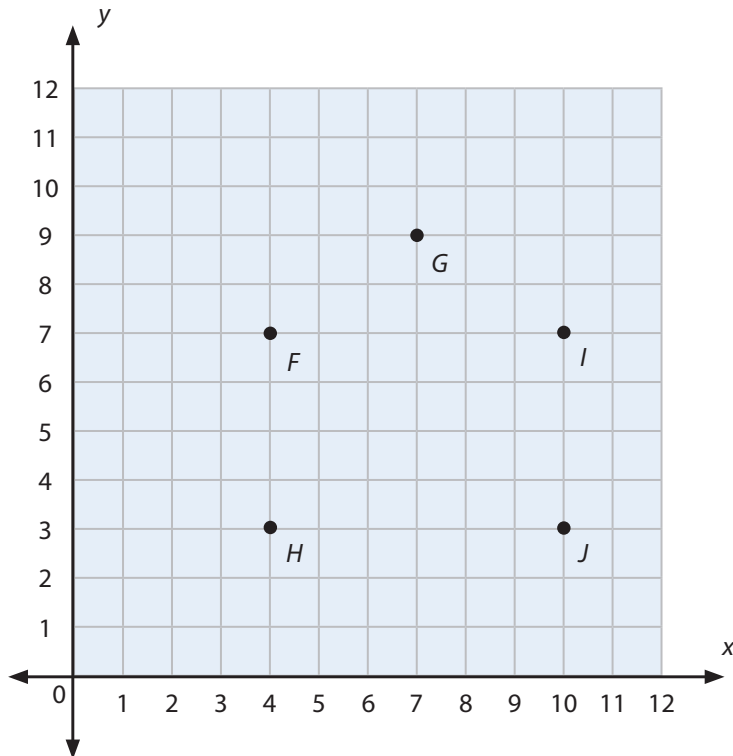
6. (4, 7) F

7. (7, 9) G

8. (4, 3) H

9. (10, 7) I

10. (10, 3) J



Solve.

$$1. 971 + 136 + 538 + 818 + 881 = \underline{3,344}$$

$$2. 766 + 245 + 952 + 446 + 312 = \underline{2,721}$$

$$3. 228 + 347 + 474 + 146 + 359 = \underline{1,554}$$

$$4. 873 + 721 + 979 + 619 + 648 = \underline{3,840}$$

$$\begin{array}{r} 5. \quad 95,939 \\ - 59,962 \\ \hline 35,977 \end{array}$$

$$\begin{array}{r} 6. \quad 62,884 \\ - 10,611 \\ \hline 52,273 \end{array}$$

$$\begin{array}{r} 7. \quad 91,315 \\ - 87,795 \\ \hline 3,520 \end{array}$$

$$\begin{array}{r} 8. \quad 47,386 \\ - 25,668 \\ \hline 21,718 \end{array}$$

$$\begin{array}{r} 9. \quad 358 \\ \times 711 \\ \hline 254,538 \end{array}$$

$$\begin{array}{r} 10. \quad 471 \\ \times 512 \\ \hline 241,152 \end{array}$$

$$\begin{array}{r} 11. \quad 948 \\ \times 343 \\ \hline 325,164 \end{array}$$

$$\begin{array}{r} 12. \quad 324 \\ \times 460 \\ \hline 149,040 \end{array}$$

Solve. Round the quotient to the nearest tenth.

$$13. \quad 69 \overline{)854.00} \quad \underline{12.37 \approx 12.4}$$

$$14. \quad 21 \overline{)389.00} \quad \underline{18.52 \approx 18.5}$$

$$15. \quad 25 \overline{)514.00} \quad \underline{20.56 \approx 20.6}$$

$$16. \quad 13 \overline{)624} \quad \underline{48}$$

Write the ratio as a fraction in lowest terms.

1. 10 peppermints to 6 lemon drops  $\frac{10}{6} = \frac{5}{3}$

2. 2 cups sugar to 10 cups water  $\frac{2}{10} = \frac{1}{5}$

3. 8 elephants to 7 giraffes  $\frac{8}{7}$

4. 54 cookies to 6 students  $\frac{54}{6} = \frac{9}{1}$

Use the data from the table to write the ratio. *Ratio form may vary.*

5. cats to dogs  $6:4$

6. lizards to birds  $\frac{3}{12}$

7. fish to total animals  $50:93$

8. dogs to hamsters  $4 \text{ to } 7$

9. animals with fur to animals without fur  $\frac{20}{73}$

10. reptiles to fish  $11:50$

Andrew's Pet Store			
cats	6	fish	50
dogs	4	hamsters	7
lizards	3	gerbils	3
turtles	8	birds	12

Complete the ratio table.

11.

cars	10	20	40	80
trucks	6	12	24	48

12.

students	19	57	95	171
girls	10	30	50	90

Write a comparison sentence using = or  $\neq$ .

1.  $\frac{3}{5} \neq \frac{1}{3}$

2.  $\frac{4}{5} = \frac{16}{20}$

3.  $\frac{40}{80} \neq \frac{1}{4}$

4.  $\frac{12}{27} \neq \frac{4}{7}$

Find the unit rate.

5. 15 gal of gas to drive 450 mi **30 mi/gal**

8. \$84 earned in 7 hr **\$12/hr**

6. 135 pages read in 45 min **3 pg/min**

9. 5 cans of peas for \$2.00 **\$0.40/can**

7. 4 lbs meat for \$8.76 **\$2.19/lb**

10. 12 pencils for \$6.00 **\$0.50/pencil**

Write the missing term that completes the equivalent ratio.

11.  $\frac{1}{7} = \frac{n}{49}$  **n = 7**

12.  $\frac{2}{7} = \frac{10}{n}$  **n = 35**

13.  $\frac{36}{42} = \frac{6}{n}$  **n = 7**

14.  $\frac{5}{9} = \frac{n}{36}$  **n = 20**

15.  $\frac{3}{4} = \frac{18}{n}$  **n = 24**

16.  $\frac{30}{16} = \frac{n}{8}$  **n = 15**

Write the percent in **decimal form**.

1. 52% 0.52      2. 17% 0.17      3. 19% 0.19      4. 2% 0.02      5. 75% 0.75

Write the decimal in **percent form**.

6. 0.58 58%      7. 0.8 80%      8. 0.09 9%      9. 0.27 27%      10. 0.93 93%

Write the percent in **fraction form** in lowest terms.

11. 60%  $\frac{3}{5}$       12. 20%  $\frac{1}{5}$       13. 50%  $\frac{1}{2}$       14. 25%  $\frac{1}{4}$       15. 75%  $\frac{3}{4}$

Find the percent of the number.

16. 20% of 100 = 20      17. 50% of 8 = 4      18. 50% of 90 = 45
19. 10% of 30 = 3      20. 25% of 100 = 25

Find the volume of a prism with the given dimensions.

1. rectangular prism:  $l = 3$  cm,  $w = 2$  cm,  $h = 6$  cm  $\underline{3 \text{ cm} \cdot 2 \text{ cm} \cdot 6 \text{ cm} = 36 \text{ cm}^3}$

2. square prism:  $s = 7$  m  $\underline{(7 \text{ m})^3 = 343 \text{ m}^3}$

3. rectangular prism:  $l = 7$  m,  $w = 8$  m,  $h = 6$  m  $\underline{7 \text{ m} \cdot 8 \text{ m} \cdot 6 \text{ m} = 336 \text{ m}^3}$

Find the volume of a cylinder with the given dimensions.

4. cylinder:  $r = 2$  m,  $h = 7$  m  $\underline{3.14 \cdot (2 \text{ m})^2 \cdot 7 \text{ m} = 87.92 \text{ m}^3}$

5. cylinder:  $r = 4$  m,  $h = 9$  m  $\underline{3.14 \cdot (4 \text{ m})^2 \cdot 9 \text{ m} = 452.16 \text{ m}^3}$

6. cylinder:  $r = 5$  m,  $h = 10$  m  $\underline{3.14 \cdot (5 \text{ m})^2 \cdot 10 \text{ m} = 785 \text{ m}^3}$

Solve.

7. Jason filled a rectangular planter with potting soil. His planter is 4 feet long, 2 feet wide, and 0.5 feet high. How much potting soil did it take to fill his planter?

$$4 \text{ ft} \cdot 2 \text{ ft} \cdot 0.5 \text{ ft} = 4 \text{ ft}^3$$

8. Sarah made a vanilla cake in a pan that is 13 inches by 9 inches by 2 inches. What is the volume of half of her pan?

$$13 \text{ in.} \cdot 9 \text{ in.} \cdot 2 \text{ in.} = 234 \text{ in.}^3; \frac{234 \text{ in.}^3}{2} = 117 \text{ in.}^3$$

9. The fish tank in Dr. Goforth's office is cube shaped with equal dimensions of 3.3 feet. What is the volume of his fish tank?

$$(3.3 \text{ ft})^3 = 35.937 \text{ ft}^3$$

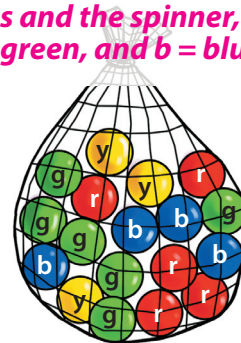
Answer the questions. *Ratio form may vary.*

1. Write the ratio of blue balls to total balls. 4:18

2. Write the ratio of red balls to total balls. 5:18

3. Which color ball is most likely to be chosen from the bag? green

*For the bag of marbles and the spinner, y = yellow, r = red, g = green, and b = blue.*



4. Write the ratio that tells the probability that the spinner will land on blue. 3:8

5. Write the ratio that tells the probability that the spinner will land on green. 4:8

6. Which color has the lowest probability that the spinner will land on it? red

7. Write the ratio in fraction form to show the number of white-frosted doughnuts to total doughnuts.

$\frac{5}{12}$

8. Write the ratio in word form to show the number of white-frosted doughnuts to pink-frosted doughnuts.

5 to 6

9. Write the ratio to show the number of chocolate-frosted doughnuts to white-frosted and pink-frosted doughnuts.

1:11

10. The box of doughnuts has 5 white-frosted donuts, 6 pink-frosted doughnuts, and 1 chocolate-frosted doughnut. If someone takes one without looking, what type of doughnut will be the least likely taken?

chocolate-frosted



Write the numbers in order from *least* to *greatest*.

1. 

4	-4	0	7
---	----	---	---

  
-4
0
4
7

2. 

8	-7	0	-8
---	----	---	----

  
-8
-7
0
8

3. 

-7	-10	-2	0
----	-----	----	---

  
-10
-7
-2
0

4. 

0	1	-2	-5
---	---	----	----

  
-5
-2
0
1

Write a comparison sentence using  $>$  or  $<$ .

5.  $2 > -2$

6.  $-3 < -2$

7.  $-50 > -75$

8.  $-8 < 4$

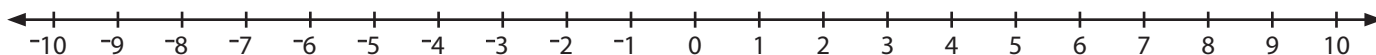
9.  $-6 > -9$

10.  $-12 > -16$

11.  $5 > 4$

12.  $6 < 7$

Use the number line to solve.



13.  $-4 + -3 = -7$

14.  $5 + 1 = 6$

15.  $-3 + -6 = -9$

16.  $-5 + 5 = 0$

17.  $4 + -9 = -5$

18.  $8 + -4 = 4$



Solve.

1.

2005	200
2006	350
2007	400
2008	425
2009	450
2010	473

Camp Silver records the number of campers that attend each year. What is the average attendance of campers for the years shown on the chart?

$$(200 + 350 + 400 + 425 + 450 + 473) \div 6 = 2,298 \div 6 = 383 \text{ campers}$$

2. Find the average grade for each student.  
Round the average to the nearest whole number.

	Test 1	Test 2	Test 3	Average
Kara	75	85	90	83
Jason	92	100	85	92
Abigail	85	95	90	90
Robert	100	100	97	99

3. Calculate Jim's average bowling score for Saturday's four games.

1	2	3	4
156	128	134	150

$$(156 + 128 + 134 + 150) \div 4 = 568 \div 4 = 142$$

4. Jessica saw 5 birds on Monday, 6 on Tuesday, 3 on Wednesday, 4 on Thursday, and 2 on Friday. What is the average number of birds she saw each day?

$$(5 + 6 + 3 + 4 + 2) \div 5 = 20 \div 5 = 4 \text{ birds}$$

5. In 2007 the Chicago Cubs won 85 baseball games. They won 97 games in 2008, 83 in 2009, and 75 in 2010. What is their average number of games won?

$$(85 + 97 + 83 + 75) \div 4 = 340 \div 4 = 85 \text{ games}$$

Solve. Rename in lowest terms. *Answer is shown using cancellation.*

$$1. \frac{1}{3} \div \frac{1}{5} = \underline{1 \frac{2}{3}}$$

$$\frac{1}{3} \times \frac{5}{1} = \frac{5}{3} = 1 \frac{2}{3}$$

$$5. \frac{3}{4} \div \frac{1}{2} = \underline{1 \frac{1}{2}}$$

$$\frac{3}{4} \times \frac{2}{1} = \frac{3}{2} = 1 \frac{1}{2}$$

$$9. 2 \frac{4}{7} \div \frac{3}{4} = \underline{3 \frac{3}{7}}$$

$$\frac{18}{7} \times \frac{4}{3} = \frac{24}{7} = 3 \frac{3}{7}$$

$$2. \frac{3}{5} \div \frac{2}{3} = \underline{1 \frac{9}{10}}$$

$$\frac{3}{5} \times \frac{3}{2} = \frac{9}{10}$$

$$6. \frac{9}{18} \div \frac{3}{6} = \underline{1}$$

$$\frac{9}{18} \times \frac{6}{3} = \frac{3}{3} = 1$$

$$10. 3 \frac{3}{8} \div \frac{4}{8} = \underline{6 \frac{3}{4}}$$

$$\frac{27}{8} \times \frac{8}{4} = \frac{27}{4} = 6 \frac{3}{4}$$

$$3. \frac{4}{8} \div \frac{1}{4} = \underline{2}$$

$$\frac{4}{8} \times \frac{4}{1} = \frac{4}{2} = 2$$

$$7. 5 \frac{1}{3} \div 2 \frac{1}{6} = \underline{2 \frac{6}{13}}$$

$$\frac{16}{3} \times \frac{6}{13} = \frac{32}{13} = 2 \frac{6}{13}$$

$$11. 5 \frac{6}{7} \div \frac{1}{3} = \underline{17 \frac{4}{7}}$$

$$\frac{41}{7} \times \frac{3}{1} = \frac{123}{7} = 17 \frac{4}{7}$$

$$4. \frac{9}{12} \div \frac{1}{6} = \underline{4 \frac{1}{2}}$$

$$\frac{9}{12} \times \frac{6}{1} = \frac{9}{2} = 4 \frac{1}{2}$$

$$8. 9 \frac{2}{4} \div 3 \frac{1}{6} = \underline{3}$$

$$\frac{38}{4} \times \frac{6}{19} = \frac{6}{2} = 3$$

$$12. 4 \frac{3}{8} \div 1 \frac{2}{6} = \underline{3 \frac{9}{32}}$$

$$\frac{35}{8} \times \frac{6}{8} = \frac{105}{32} = 3 \frac{9}{32}$$

Solve.

13. Miss Snow teaches ice skating to beginners. Each lesson is  $\frac{1}{2}$  of an hour long. How many lessons can she give in 3 hours?

$$3 \div \frac{1}{2} = \frac{3}{1} \times \frac{2}{1} = \frac{6}{1} = 6 \text{ lessons}$$

14. David is planning to grill burgers for a cookout. He uses 1 pound of hamburger to make 4 burgers. How many burgers can he make with  $4 \frac{1}{2}$  pounds of meat?

$$4 \frac{1}{2} \times 4 = \frac{9}{2} \times \frac{4}{1} = \frac{18}{1} = 18 \text{ burgers}$$

Solve.

$$1. \begin{array}{r} 0.014 \\ 9.4 \overline{)0.1316} \\ \underline{94} \phantom{00} \\ 131 \phantom{6} \\ \underline{94} \phantom{00} \\ 366 \\ \underline{366} \\ 0 \end{array}$$

$$2. \begin{array}{r} 0.59 \\ 5.4 \overline{)3.186} \\ \underline{54} \phantom{00} \\ 318 \phantom{6} \\ \underline{270} \phantom{00} \\ 486 \\ \underline{486} \\ 0 \end{array}$$

$$3. \begin{array}{r} 0.31 \\ 67 \overline{)20.77} \\ \underline{201} \phantom{00} \\ 677 \\ \underline{670} \\ 70 \\ \underline{70} \\ 0 \end{array}$$

$$4. \begin{array}{r} 0.05 \\ 1 \overline{)0.05} \\ \underline{05} \\ 0 \end{array}$$

$$5. \begin{array}{r} 49 \\ 8.9 \overline{)436.1} \\ \underline{89} \phantom{00} \\ 436 \phantom{1} \\ \underline{890} \phantom{00} \\ 461 \\ \underline{461} \\ 0 \end{array}$$

$$6. \begin{array}{r} 0.05 \\ 7.5 \overline{)0.375} \\ \underline{75} \phantom{00} \\ 375 \\ \underline{375} \\ 0 \end{array}$$

$$7. \begin{array}{r} 0.33 \\ 1.3 \overline{)0.429} \\ \underline{39} \phantom{00} \\ 399 \\ \underline{399} \\ 0 \end{array}$$

$$8. \begin{array}{r} 0.29 \\ 27 \overline{)7.83} \\ \underline{54} \phantom{00} \\ 243 \\ \underline{243} \\ 0 \end{array}$$

Rename the denominator as a power of 10. Write the fraction as a decimal.

$$9. \frac{2}{5} = \frac{4}{10} = 0.4$$

$$10. \frac{5}{25} = \frac{20}{100} = 0.20$$

$$11. \frac{3}{4} = \frac{75}{100} = 0.75$$

$$12. \frac{1}{2} = \frac{5}{10} = 0.5$$

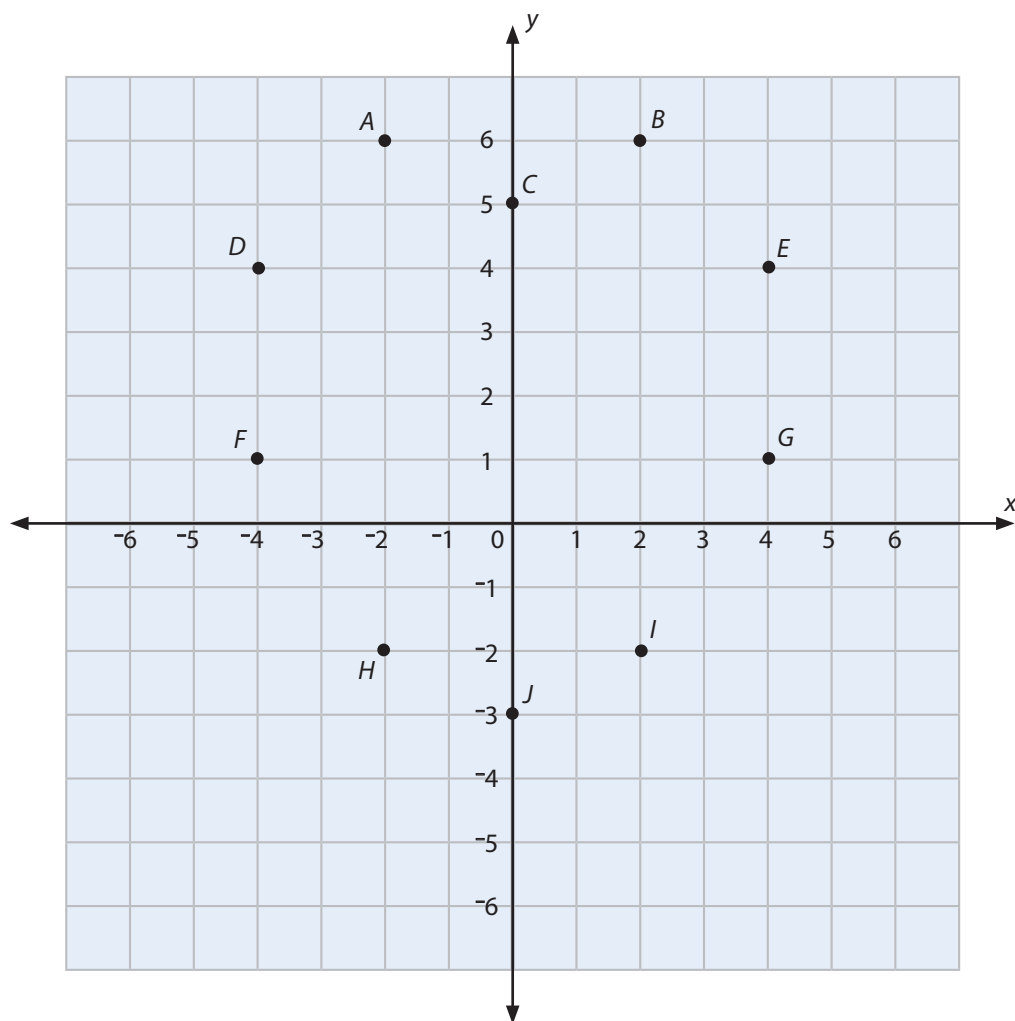
Divide. Write the fraction as a decimal. Mark the repeating digits.

$$13. \frac{3}{4} = 0.75$$

$$14. \frac{8}{9} = 0.\overline{8}$$

$$15. \frac{2}{3} = 0.\overline{6}$$

$$16. \frac{1}{4} = 0.25$$



Name the point represented by the coordinates.

1.  $(2, 6)$  **B**

2.  $(-4, 1)$  **F**

3.  $(-2, -2)$  **H**

4.  $(4, 4)$  **E**

5.  $(0, 5)$  **C**

Write the coordinates for the point.

6. A  **$(-2, 6)$**

7. D  **$(-4, 4)$**

8. G  **$(4, 1)$**

9. I  **$(2, -2)$**

10. J  **$(0, -3)$**

Solve.

$$\begin{array}{r} 1. \quad 643,564 \\ + 246,203 \\ \hline 889,767 \end{array}$$

$$\begin{array}{r} 6. \quad 391,715 \\ - 96,639 \\ \hline 295,076 \end{array}$$

$$\begin{array}{r} 11. \quad 493 \\ \times 321 \\ \hline 158,253 \end{array}$$

$$16. \quad 14 \overline{)994} \quad \begin{array}{r} 71 \\ 14 \overline{)994} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 228,258 \\ + 552,220 \\ \hline 780,478 \end{array}$$

$$\begin{array}{r} 7. \quad 793,151 \\ - 150,895 \\ \hline 642,256 \end{array}$$

$$\begin{array}{r} 12. \quad 141 \\ \times 998 \\ \hline 140,718 \end{array}$$

$$17. \quad 18 \overline{)108} \quad \begin{array}{r} 6 \\ 18 \overline{)108} \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 734,280 \\ + 154,745 \\ \hline 889,025 \end{array}$$

$$\begin{array}{r} 8. \quad 26,956 \\ - 25,666 \\ \hline 1,290 \end{array}$$

$$\begin{array}{r} 13. \quad 860 \\ \times 775 \\ \hline 666,500 \end{array}$$

$$18. \quad 21 \overline{)126} \quad \begin{array}{r} 6 \\ 21 \overline{)126} \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 571,900 \\ + 648,843 \\ \hline 1,220,743 \end{array}$$

$$\begin{array}{r} 9. \quad 472,320 \\ - 205,663 \\ \hline 266,657 \end{array}$$

$$\begin{array}{r} 14. \quad 106 \\ \times 215 \\ \hline 22,790 \end{array}$$

$$19. \quad 16 \overline{)368} \quad \begin{array}{r} 23 \\ 16 \overline{)368} \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 826,520 \\ + 862,498 \\ \hline 1,689,018 \end{array}$$

$$\begin{array}{r} 10. \quad 453,388 \\ - 436,850 \\ \hline 16,538 \end{array}$$

$$\begin{array}{r} 15. \quad 124 \\ \times 842 \\ \hline 104,408 \end{array}$$

$$20. \quad 23 \overline{)920} \quad \begin{array}{r} 40 \\ 23 \overline{)920} \\ \hline \end{array}$$

Write the ratio in **word form**, **ratio form**, and **fraction form**.

1. 1 computer for every 3 students 1 to 3 1:3  $\frac{1}{3}$

2. 2 workers for every 15 children 2 to 15 2:15  $\frac{2}{15}$

3. 4 tables for every 32 people 4 to 32 4:32  $\frac{4}{32}$

4. 6 servings for every pie 6 to 1 6:1  $\frac{6}{1}$

5. 6 cookies for every 3 lunches 6 to 3 6:3  $\frac{6}{3}$

Write the ratio as a fraction in lowest terms.

6. 2 to 8  $\frac{2}{8} = \frac{1}{4}$

7. 4 to 12  $\frac{4}{12} = \frac{1}{3}$

8. 5 to 10  $\frac{5}{10} = \frac{1}{2}$

9. 8 to 20  $\frac{8}{20} = \frac{2}{5}$

10. 10 to 100  $\frac{10}{100} = \frac{1}{10}$

Use equivalent ratios to find the missing term.

11.  $\frac{4}{8} = \frac{n}{16}$   
n = 8

12.  $\frac{1}{4} = \frac{n}{100}$   
n = 25

13.  $\frac{2}{3} = \frac{4}{n}$   
n = 6

14.  $\frac{1}{5} = \frac{n}{100}$   
n = 20

Solve.

15. 
$$\begin{array}{r} 249.71 \\ + 84.09 \\ \hline 333.80 \end{array}$$

16. 
$$\begin{array}{r} \$3.75 \\ \times 5 \\ \hline \$18.75 \end{array}$$

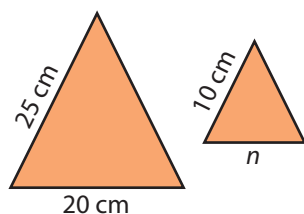
17. 
$$\begin{array}{r} \$20.00 \\ - \$12.75 \\ \hline \$7.25 \end{array}$$

18.  $1,287 \div 3 = \underline{429}$

19.  $1.2 + 39.764 = \underline{40.964}$

Write a proportion to find the unknown measure of the similar figure.

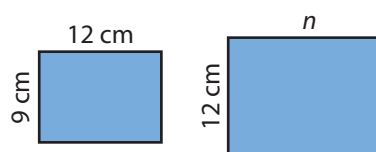
1.



$$\frac{25}{20} = \frac{10}{n}$$

$$n = 8 \text{ cm}$$

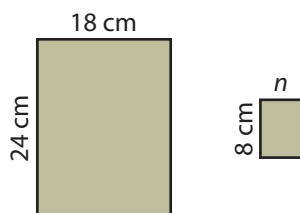
2.



$$\frac{12}{9} = \frac{n}{12}$$

$$n = 16 \text{ cm}$$

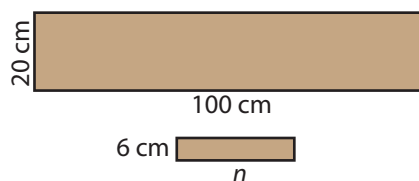
3.



$$\frac{18}{24} = \frac{n}{8}$$

$$n = 6 \text{ cm}$$

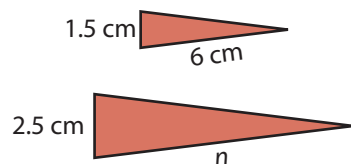
4.



$$\frac{20}{100} = \frac{6}{n}$$

$$n = 30 \text{ cm}$$

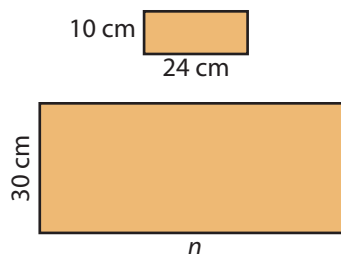
5.



$$\frac{1.5}{6} = \frac{2.5}{n}$$

$$n = 10 \text{ cm}$$

6.



$$\frac{10}{24} = \frac{30}{n}$$

$$n = 72 \text{ cm}$$

Write a proportion to solve.

7. A parking meter that is 1.5 meters tall casts a shadow of 3 meters. A light pole in the parking lot casts a shadow of 12 meters. How tall is the light pole?

$$\frac{1.5}{3} = \frac{n}{12}; n = 6 \text{ m}$$

8. A tree casts a shadow of 1.2 meters. A meter stick casts a shadow of 0.4 meters. What is the height of the tree?

$$\frac{1}{0.4} = \frac{n}{1.2}; n = 3 \text{ m}$$

Write the percent as a decimal and as a fraction in lowest terms.

1. 53% = 0.53 =  $\frac{53}{100}$

2. 8% = 0.08 =  $\frac{2}{25}$

3. 70% = 0.70 or 0.7 =  $\frac{7}{10}$

Write the ratio as a percent.

4.  $\frac{8}{100}$  8%

5. 20:100 20%

6. 5 per 100 5%

Write the decimal as a percent. Annex zeros as needed.

7. 0.01 1%

8. 0.1 10%

9. 0.69 69%

Write the percent as a fraction with a denominator of 100 and in lowest terms.

10. 50% =  $\frac{50}{100}$  =  $\frac{1}{2}$

11. 6% =  $\frac{6}{100}$  =  $\frac{3}{50}$

12. 10% =  $\frac{10}{100}$  =  $\frac{1}{10}$

Solve.

As part of a class project, Daniel surveyed 40 people to find out whether they preferred basketball or baseball.

Sport	Tally	Frequency
Baseball		12
Basketball		28

13. What percent of the people preferred baseball?

30%



Write the equivalent measurement.

1. 1 ft = 12 in.

2. 1 mi = 5,280 ft

3. 1 gal = 4 qt

4. 1 tn = 2,000 lb

5. 1 pt = 2 c

6. 1 lb = 16 oz

Rename the units.

7. 18 in. =  $1\frac{1}{2}$  or 1.5 ft

8. 12 ft = 4 yd

9. 2 tn 1,280 lb = 5,280 lb

10. 24 oz = 3 c

Solve.

11. 
$$\begin{array}{r} 1 \text{ ft } 11 \text{ in.} \\ + 2 \text{ ft } 16 \text{ in.} \\ \hline 3 \text{ ft } 27 \text{ in.} = \\ 5 \text{ ft } 3 \text{ in.} \end{array}$$

12. 
$$\begin{array}{r} 3 \text{ lb } 12 \text{ oz} \\ - 20 \text{ oz} \\ \hline 2 \text{ lb } 8 \text{ oz} \end{array}$$

13. 
$$\begin{array}{r} 1,760 \text{ yd} \\ + 845 \text{ yd} \\ \hline 2,605 \text{ yd} \end{array}$$

14. 
$$\begin{array}{r} 3 \text{ gal } 1 \text{ qt} \\ - 1 \text{ gal } 2 \text{ qt} \\ \hline 1 \text{ gal } 3 \text{ qt} \end{array}$$

15. yards in  $\frac{1}{2}$  of a mile  
880 yd

16. feet in  $\frac{2}{3}$  of a yard  
2 ft

17. inches in  $\frac{1}{4}$  of a foot  
3 in.

18. Mother used  $2\frac{1}{2}$  pounds of hamburger to make meatloaf. How many ounces were left from the 3-pound package?

$3 \text{ lb} - 2\frac{1}{2} \text{ lb} = \frac{1}{2} \text{ lb}; \frac{1}{2} \times 16 \text{ oz} = 8 \text{ oz}$

19. Claire placed six 18-inch pieces of ribbon across her bulletin board. How many yards of ribbon did she use?

$6 \times 18 \text{ in.} = 108 \text{ in.};$   
 $108 \text{ in.} \div 36 = 3 \text{ yd of ribbon}$

20. Jordan cut an 8-foot board into 3 equal pieces. How many inches long were the pieces?

$8 \times 12 \text{ in.} = 96 \text{ in.}; 96 \text{ in.} \div 3 = 32 \text{ in.}$

Write the equivalent measurement.

1. 1 m = 100 cm

2. 1 L = 1000 mL

3. 1 kg = 1000 g

4. 1 km = 1000 m

Rename the units.

5. 3 m = 300 cm

6. 7250 m = 7.250 km

7. 5000 g = 5 kg

8. 2 L = 2000 mL

Solve.

9.  $\frac{1}{2}$  of a kilometer

500 m

10.  $\frac{1}{4}$  of a meter

25 cm

11.  $\frac{3}{4}$  of a liter

750 mL

12. 
$$\begin{array}{r} 2500 \text{ mL} \\ + 1500 \text{ mL} \\ \hline 4000 \text{ mL} \end{array}$$

13. 
$$\begin{array}{r} 3417 \text{ kg} \\ - 2750 \text{ kg} \\ \hline 667 \text{ kg} \end{array}$$

14. 3 L - 2750 mL = 250 mL

15. 8341 g + 978 g = 9319 g

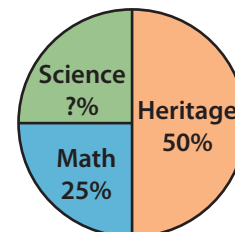
16. The punch recipe calls for 1 liter of orange juice, 2 liters of lemon-lime soda, 300 milliliters of lemonade concentrate, and 1.5 liters of water. How much punch does the recipe make?  
**4.8 L or 4800 mL of punch**

17. The nurse said Carissa's temperature was normal. What was her temperature in Celsius?  
**37° C**

Use the data from the circle graph to find the answer.

The sixth-grade class surveyed 100 students to find their favorite subjects.

**Favorite Subjects**



1. What percent of students surveyed liked heritage the best?

**50%**

2. Of the 100 students surveyed, how many chose math?

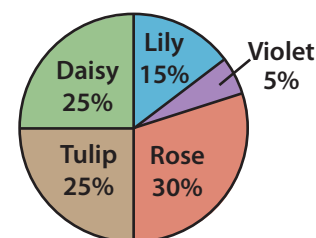
**25 students**

3. What percent of the students surveyed chose science?

**25%**

Mrs. Hancock made a circle graph to show the percents of the different kinds of flowers in her garden.

**Garden Flowers**

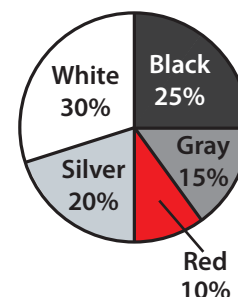


4. List the kinds of flowers in order from the largest percentage to the smallest percentage.

**rose, daisy/tulip, lily, violet**

The car dealership made a circle graph of the most popular car colors. They used the information to order new cars.

**Popular Car Colors**



5. Based on the graph, what color car would the dealership order the most of?

**white**

6. If they ordered 100 cars, how many cars would they order in black?

**25 cars**

7. Does this graph show how many red vans to order?

**no**

8. List the colors from greatest percentage to smallest percentage.

**white, black, silver, gray, red**

Write the improper fraction as a mixed number or a whole number.

$$1. \frac{4}{3} = \underline{1 \frac{1}{3}}$$

$$2. \frac{7}{2} = \underline{3 \frac{1}{2}}$$

$$3. \frac{12}{4} = \underline{3}$$

$$4. \frac{6}{6} = \underline{1}$$

$$5. \frac{9}{4} = \underline{2 \frac{1}{4}}$$

Solve. Write the answer in lowest terms. *Answer is shown using cancellation.*

$$6. \begin{array}{r} \frac{2}{3} \\ + \frac{1}{3} \\ \hline \frac{3}{3} = 1 \end{array}$$

$$7. \begin{array}{r} \frac{4}{5} = \frac{8}{10} \\ + \frac{2}{10} = \frac{2}{10} \\ \hline \frac{10}{10} = 1 \end{array}$$

$$8. \begin{array}{r} 6 \frac{1}{2} = 6 \frac{2}{4} \\ - 4 \frac{1}{4} = 4 \frac{1}{4} \\ \hline 2 \frac{1}{4} \end{array}$$

$$9. \begin{array}{r} 4 \frac{3}{5} \\ - 2 \frac{2}{3} \\ \hline 2 \frac{1}{3} \end{array}$$

$$10. \begin{array}{r} \frac{8}{10} = \frac{4}{5} \\ - \frac{3}{15} = \frac{1}{5} \\ \hline \frac{3}{5} \end{array}$$

$$11. 3 \times \frac{4}{5} = \underline{\frac{12}{5} = 2 \frac{2}{5}}$$

$$12. 1 \frac{1}{2} \times 2 \frac{3}{6} = \underline{3 \frac{3}{4}}$$

$$\frac{3}{2} \times \frac{15}{6} = \frac{15}{4} = 3 \frac{3}{4}$$

$$13. 4 \frac{2}{8} \times 3 \frac{1}{5} = \underline{13 \frac{3}{5}}$$

$$\frac{34}{8} \times \frac{16}{5} = \frac{68}{5} = 13 \frac{3}{5}$$

$$14. 3 \div \frac{1}{2} = \underline{6}$$

$$\frac{3}{1} \times \frac{2}{1} = 6$$

$$15. 4 \frac{1}{5} \div 1 \frac{1}{4} = \underline{3 \frac{9}{25}}$$

$$\frac{21}{5} \times \frac{4}{5} = \frac{84}{25} = 3 \frac{9}{25}$$

$$16. \frac{6}{8} \div \frac{1}{4} = \underline{3}$$

$$\frac{6}{8} \times \frac{4}{1} = \frac{6}{2} = 3$$

17. Jackson filled bags with candy to give to his classmates. He filled each bag with  $\frac{1}{4}$  of a pound of candy. He had 3 pounds of candy. Would he have enough bags to give to 20 students?

$$3 \div \frac{1}{4} = \frac{3}{1} \times \frac{4}{1} = 12; \text{no}$$

18. Missy placed  $\frac{3}{4}$  of a yard of ribbon around a bouquet of flowers. She had  $5 \frac{1}{2}$  yards of ribbon. How many bouquets could she put ribbon around?

$$5 \frac{1}{2} \div \frac{3}{4} = \frac{11}{2} \times \frac{4}{3} = \frac{22}{3} = 7 \frac{1}{3}; 7 \text{ bouquets}$$

Solve.

$$\begin{array}{r} 1. \quad \$1,285.79 \\ + \$2,391.82 \\ \hline \$3,677.61 \end{array}$$

$$\begin{array}{r} 2. \quad 32.105 \\ - 15.019 \\ \hline 17.086 \end{array}$$

$$\begin{array}{r} 3. \quad 50.12 \\ \times \quad 3 \\ \hline 150.36 \end{array}$$

$$\begin{array}{r} 4. \quad \$150.00 \\ - \$79.35 \\ \hline \$70.65 \end{array}$$

$$5. \quad 4 \times 2.175 = \underline{8.7}$$

$$6. \quad \frac{3}{4} \times \frac{5}{6} = \underline{\frac{5}{8}}$$

$$7. \quad 1,518 \div 6 = \underline{253}$$

$$8. \quad \frac{6}{9} \div \frac{1}{3} = \underline{2}$$

$$\frac{6}{9} \times \frac{3}{1} = \frac{6}{3} = 2$$

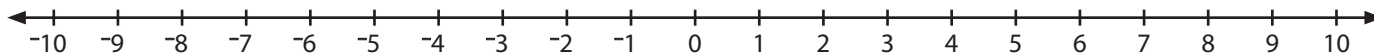
$$9. \quad 3 \overline{)4,560} \quad \underline{1,520}$$

$$10. \quad 25 \overline{)8,175} \quad \underline{327}$$

$$11. \quad 47 \overline{)16.215} \quad \underline{0.345}$$

$$12. \quad 19 \overline{)116.28} \quad \underline{6.12}$$

Use the number line to solve.



$$13. \quad 3 + ^{-}1 = \underline{2}$$

$$14. \quad ^{-}4 + ^{-}5 = \underline{-9}$$

$$15. \quad ^{-}6 + 1 = \underline{-5}$$

$$16. \quad ^{-}4 + 4 = \underline{0}$$

Solve.

$$17. \quad n + 8 = 12$$

$$\underline{n = 4}$$

$$18. \quad \frac{n}{4} = \frac{25}{100}$$

$$\underline{n = 1}$$

$$19. \quad 3n = 18$$

$$\underline{n = 6}$$

$$20. \quad 36 \div 9 = n$$

$$\underline{n = 4}$$

Make a stem-and-leaf plot with the data. Use the data to answer the questions.

Mr. Arnold recorded the number of emergency calls that were placed over a 10-day period in March.

Calls	70	82	74	70	69	76	75	80	78	73
Day	1	2	3	4	5	6	7	8	9	10

1. What is the range of the calls?  $82 - 69 = 13$

2. What is the mean?  $747 \div 10 = 74.7 \approx 75$

3. What is the mode?  $70$

4. What is the median?  $(74 + 75) \div 2 = 74.5$

Emergency Calls Recorded	
stem	leaf
6	9
7	0, 0, 3, 4, 5, 6, 8
8	0, 2

Key  $6|9 = 69$

Use the picture to answer the questions.

1. What is the ratio of vegetables to tuna?

**3:4**

2. What is the ratio of animal crackers to chips?

**2:1**

3. What is the ratio of rice mix to animal crackers?

**2:2**

4. What is the ratio of canned food to total food items?

**7:12**



Write each ratio as a fraction in lowest terms.

5. 6 boys to 8 girls

$$\frac{6}{8} = \frac{3}{4}$$

6. 1 c brown sugar to 2 c orange juice

$$\frac{1}{2}$$

7. 2 c gelatin to 5 c strawberries

$$\frac{2}{5}$$

8. 3 adults to 18 children

$$\frac{3}{18} = \frac{1}{6}$$

9. 15 elephants to 25 mice

$$\frac{15}{25} = \frac{3}{5}$$

10. 3 piano players to 21 brass players

$$\frac{3}{21} = \frac{1}{7}$$

Write a comparison sentence using = or  $\neq$ .

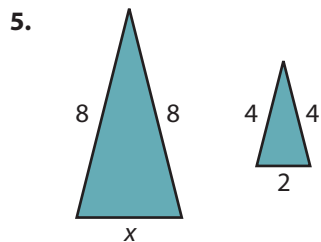
1.  $\frac{1}{2}$   $\neq$   $\frac{2}{4}$

2.  $\frac{1}{3}$   $\neq$   $\frac{3}{7}$

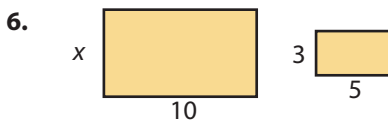
3.  $\frac{81}{72}$   $\neq$   $\frac{17}{26}$

4.  $\frac{9}{12}$   $\neq$   $\frac{3}{5}$

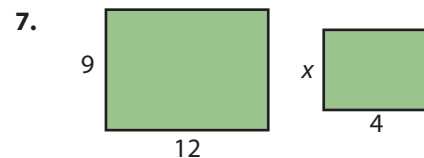
Find the missing measurement.



$x = 4$



$x = 6$



$x = 3$

Find the missing term that completes the equivalent ratio.

8.  $\frac{3}{4} = \frac{q}{100}$

$q = 75$

9.  $\frac{2}{q} = \frac{4}{16}$

$q = 8$

10.  $\frac{2}{3} = \frac{6}{q}$

$q = 9$

11.  $\frac{65}{85} = \frac{13}{q}$

$q = 17$

12.  $\frac{84}{108} = \frac{q}{9}$

$q = 7$

13.  $\frac{q}{56} = \frac{6}{8}$

$q = 42$



Write the fraction as a percent.

1.  $\frac{1}{4} =$  25%

2.  $\frac{1}{2} =$  50%

3.  $\frac{3}{4} =$  75%

4.  $\frac{1}{5} =$  20%

Find the percent of the number.

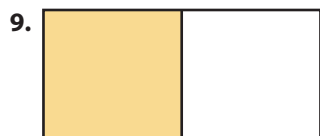
5. 50% of 80 = 40

6. 25% of \$4.00 = \$1.00

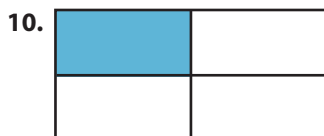
7. 10% of \$8.00 = \$0.80

8. 75% of 40 = 30

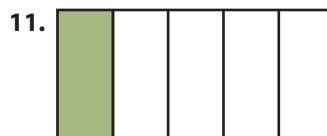
Estimate the percent shaded for the rectangle.



50%



25%



20%



75%

Write the number as a percent.

13.  $\frac{50}{100} =$  50%

14. 0.64 = 64%

15.  $\frac{15}{100} =$  15%

16. 0.09 = 9%

Solve.

17. John got 85% of his test correct. What percent did he miss?  
15%

18. Five out of 25 children play soccer. What percent of children play soccer?  
20%

19. Kyle earned \$16.00. He wants to put 10% of it in the offering. How much money will he put in the offering?  
\$1.60

20. Annie scored 25% of the game points. The total number of points was 40. How many points did she score?  
10 points

Write the ordered pair for the point.

1. A  $(-4, 2)$

2. B  $(2, 1)$

3. C  $(-1, -3)$

4. D  $(3, -3)$

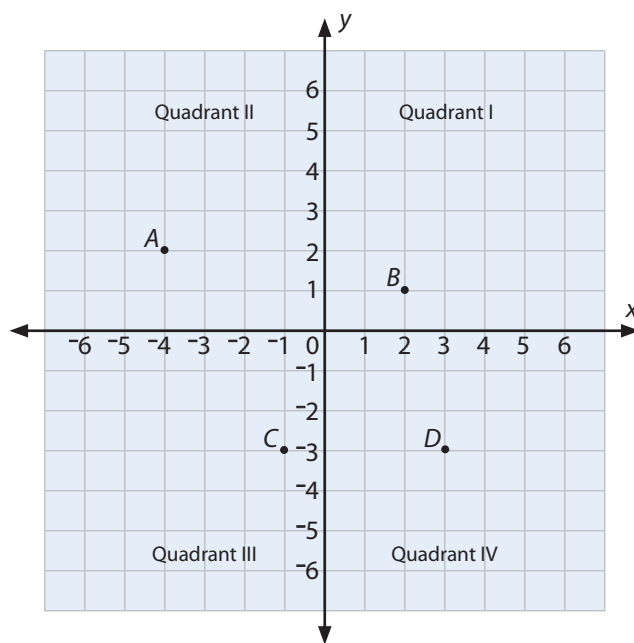
Name the quadrant in which the point is located.

5. A *Quadrant II*

6. B *Quadrant I*

7. C *Quadrant III*

8. D *Quadrant IV*



Write the answer using **647,325,689,038**.

- Write the value of the 5 in standard form. 5,000,000
- Write the digit in the Hundred Billions place. 6
- Round to the nearest one billion. 647,000,000,000
- Write the 3 digits in the Thousands period. 6, 8, 9

Write a comparison sentence using **>**, **<**, or **=**.

- 124 million **<** 1 billion
- 21.8 **>** 21.09
- twenty-one million **>** 9,475,389

Write the numbers from *least to greatest*.

- |         |           |           |           |
|---------|-----------|-----------|-----------|
| 784,983 | 7,840,983 | 7,850,983 | 7,849,983 |
|---------|-----------|-----------|-----------|

  
784,983      7,840,983      7,849,983      7,850,983
- |       |       |       |       |
|-------|-------|-------|-------|
| 3,721 | 3.721 | 372.1 | 37.21 |
|-------|-------|-------|-------|

  
3.721      37.21      372.1      3,721

Round the number to the greatest place.

- 500,000
- 2,000,000
- 800,000,000
- 5

Write the number in **standard form**.

- five hundred thirty-two billion, one million, four hundred twenty-seven thousand, ninety-six =  
532,001,427,096
- $200,000,000 + 40,000,000 + 8,000,000 + 300,000 + 60,000 + 9,000 + 100 + 50 + 7 =$   
248,369,157
- $10 \text{ billions} + 427 \text{ millions} + 801 \text{ thousands} + 119 \text{ ones} =$   
10,427,801,119
- $(7 \times 100,000) + (4 \times 10,000) + (3 \times 1,000) + (9 \times 100) + (5 \times 10) + (2 \times 1) =$   
743,952

Solve. Write the answer in lowest terms. *Answer is shown using cancellation.*

$$1. \frac{5}{6} \div \frac{1}{3} = \underline{2\frac{1}{2}}$$

$$\frac{5}{\cancel{6}} \times \frac{\cancel{3}}{1} = \frac{5}{2} = 2\frac{1}{2}$$

$$2. \frac{4}{8} \div 2 = \underline{\frac{1}{4}}$$

$$\frac{\cancel{4}}{8} \times \frac{1}{2} = \frac{1}{\cancel{8}} = \frac{1}{4}$$

$$3. 3\frac{1}{2} \div 1\frac{1}{4} = \underline{2\frac{4}{5}}$$

$$\frac{7}{\cancel{2}} \times \frac{\cancel{4}}{5} = \frac{14}{5} = 2\frac{4}{5}$$

$$4. \frac{6}{8} \div \frac{1}{2} = \underline{1\frac{1}{2}}$$

$$\frac{\cancel{6}}{\cancel{8}} \times \frac{2}{1} = \frac{6}{4} = 1\frac{1}{2}$$

$$5. 4 \times \frac{3}{4} = \underline{3}$$

$$6. \frac{3}{6} \times \frac{2}{5} = \underline{\frac{3}{15} = \frac{1}{5}}$$

$$7. 5\frac{1}{3} \times 2\frac{1}{4} = \underline{12}$$

$$\frac{16}{\cancel{3}} \times \frac{\cancel{9}}{4} = 12$$

$$8. \frac{3}{5} \times \frac{4}{9} = \underline{\frac{4}{15}}$$

$$9. \begin{array}{r} \frac{3}{9} = \frac{1}{3} \\ + \frac{2}{3} = \frac{2}{3} \\ \hline \frac{3}{3} = 1 \end{array}$$

$$10. \begin{array}{r} 6\frac{1}{2} = 6\frac{5}{10} \\ + 2\frac{3}{5} = 2\frac{6}{10} \\ \hline 8\frac{11}{10} = 9\frac{1}{10} \end{array}$$

$$11. \begin{array}{r} 9\frac{4}{5} \\ + 2\frac{3}{5} \\ \hline 11\frac{7}{5} = 12\frac{2}{5} \end{array}$$

$$12. \begin{array}{r} 8\frac{1}{5} = 8\frac{4}{20} \\ + \frac{6}{20} = \frac{6}{20} \\ \hline 8\frac{10}{20} = 8\frac{1}{2} \end{array}$$

$$13. \begin{array}{r} \frac{9}{12} \\ - \frac{4}{12} \\ \hline \frac{5}{12} \end{array}$$

$$14. \begin{array}{r} 4\frac{7}{10} = 4\frac{7}{10} \\ - 2\frac{3}{5} = 2\frac{6}{10} \\ \hline 2\frac{1}{10} \end{array}$$

$$15. \begin{array}{r} 67\frac{2}{2} \\ - 3\frac{1}{2} \\ \hline 3\frac{1}{2} \end{array}$$

$$16. \begin{array}{r} 10\frac{3}{4} = 10\frac{9}{12} \\ - 5\frac{2}{3} = 5\frac{8}{12} \\ \hline 5\frac{1}{12} \end{array}$$

Determine whether the fraction is closest to 0,  $\frac{1}{2}$ , or 1.

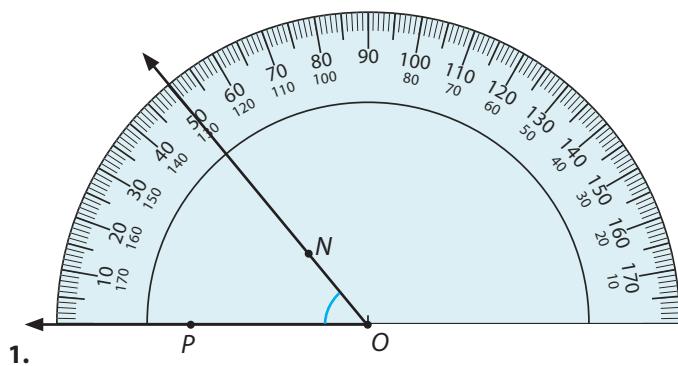
$$17. \frac{6}{10} \quad \underline{\frac{1}{2}}$$

$$18. \frac{9}{10} \quad \underline{1}$$

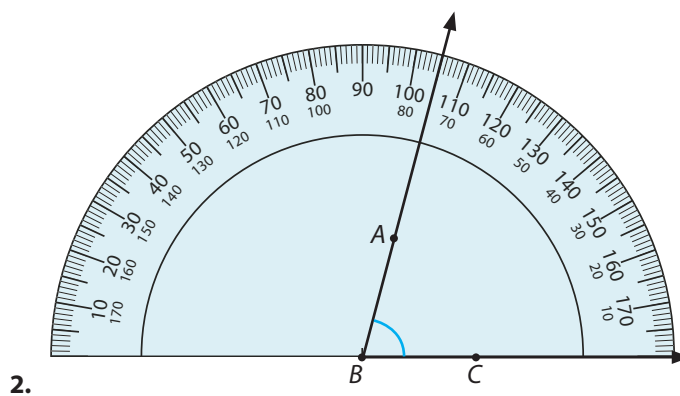
$$19. \frac{1}{10} \quad \underline{0}$$

$$20. \frac{5}{10} \quad \underline{\frac{1}{2}}$$

Write the measure of the angle.

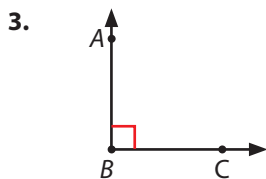


**50°**

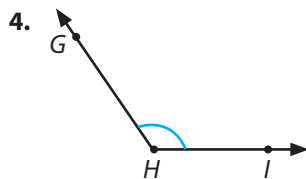


**75°**

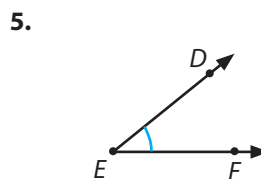
Classify the angle as **acute**, **obtuse**, **right**, or **straight**.



**right**



**obtuse**



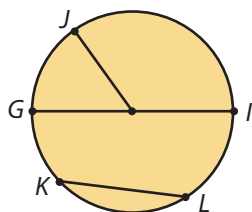
**acute**



**straight**

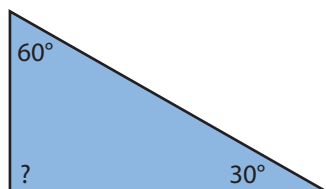
Use the figure to find the answer.

7. Name the diameter.



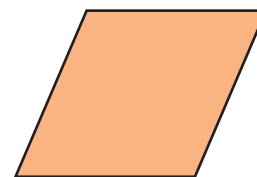
**$\overline{GI}$  or  $\overline{IG}$**

8. Find the measure of the unknown angle.



**90°**

9. Name the shape.



**parallelogram or rhombus  
or quadrilateral**

Use mental math to solve.

1.  $10 \times 15.3 = \underline{153}$

2.  $100 \times 0.247 = \underline{24.7}$

3.  $10 \times 4.5 = \underline{45}$

4.  $100 \times 23 = \underline{2,300}$

5.  $89.5 \div 10 = \underline{8.95}$

6.  $241.3 \div 100 = \underline{2.413}$

7.  $894 \div 10 = \underline{89.4}$

8.  $52.47 \div 100 = \underline{0.5247}$

Solve.

9. 
$$\begin{array}{r} 2.45 \\ \times 3 \\ \hline 7.35 \end{array}$$

10. 
$$\begin{array}{r} 398.01 \\ + 45.732 \\ \hline 443.742 \end{array}$$

11. 
$$\begin{array}{r} 42.1 \\ - 3.87 \\ \hline 38.23 \end{array}$$

12.  $8 - 3.804 = \underline{4.196}$

13. 
$$\begin{array}{r} 0.12 \\ 50 \overline{)6.00} \end{array}$$

14. 
$$\begin{array}{r} 3.4 \\ 21 \overline{)71.4} \end{array}$$

15. 
$$\begin{array}{r} 0.54 \\ 12 \overline{)6.48} \end{array}$$

16. 
$$\begin{array}{r} 6.25 \\ 9 \overline{)56.25} \end{array}$$

Write the fraction as a decimal.

17.  $\frac{3}{4} = \underline{0.75}$

18.  $\frac{5}{10} = \underline{0.5}$

19.  $\frac{2}{5} = \underline{0.4}$

20.  $\frac{1}{4} = \underline{0.25}$

Write an algebraic expression for the word phrase.

1. seven times an unknown number  $7n$

2. three more than a number  $n + 3$

3. four less than five times  $n$   $5n - 4$

4. six more than 2 times a number  $2n + 6$

Evaluate the expression if  $n = 5$ .

5.  $3n$   $15$

6.  $8 + n$   $13$

7.  $\frac{15}{n}$   $3$

8.  $20 - n$   $15$

Simplify the expression.

9.  $a + a =$   
 $2a$

10.  $(2 + 4) + n =$   
 $6 + n$

11.  $3(4x) =$   
 $12x$

12.  $8 + y + 2 =$   
 $10 + y$

Complete the table.

13.

$x$	$3x$
2	$6$
5	$15$
7	$21$

14.

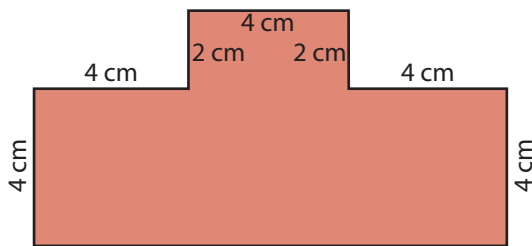
$a$	$a^2$
4	$16$
6	$36$
8	$64$

15.

$n$	$2n + 3$
7	$17$
9	$21$
10	$23$

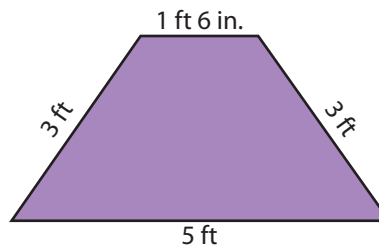
Find the perimeter of the figure.

1.



$$4 + 2 + 4 + 4 + (3 \times 4) + 4 + 4 + 2 = 36 \text{ cm}$$

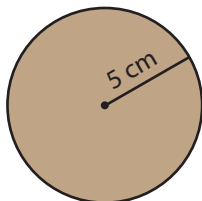
2.



$$1 \text{ ft } 6 \text{ in.} + 3 \text{ ft} + 5 \text{ ft} + 3 \text{ ft} = 12 \text{ ft } 6 \text{ in.}$$

Write the formula. Find the circumference of the circle.

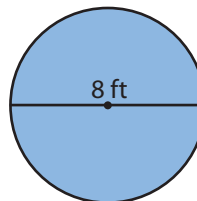
3.



$$C = 2\pi r$$

$$2 \times 3.14 \times 5 = 31.4 \text{ cm}$$

4.



$$C = \pi d$$

$$3.14 \times 8 = 25.12 \text{ ft}$$

Find the area of the figure.

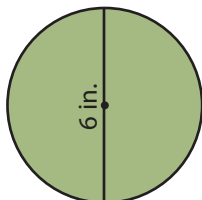
5.



$$(3 \times 2 \times 12) + (2 \times 2) = 76 \text{ ft}^2$$

Write the formula. Find the area of the circle.

6.



$$A = \pi r^2$$

$$3.14 \times (3 \text{ in.})^2 = 28.26 \text{ in.}^2$$



Find the unit rate.

1. The Laphams drove 315 miles and used 15 gallons of gas. 21 mi/gal

2. Marcus earned \$40.00 cleaning several cars. He worked 5 hours. \$8/hr

3. Mrs. Bowers bought 8 pounds of bananas for \$4.72. \$0.59/lb

4. The team traveled 1,450 miles in two days. 725 mi/d

Find the distance traveled in the given time.

5. 4 days at 350 mi/d = 1,400 mi

6. 5 hours at 65 mi/hr = 325 mi

Write a ratio. *Ratio form may vary.*

7. 3 cans for \$2.00  
3:2

8. 2 bags for \$3.00  
2:3

9. one computer for every 2 students  
1:2

Write the percent as a decimal and as a fraction in lowest terms.

10. 78% = 0.78 =  $\frac{39}{50}$

11. 50% = 0.5 =  $\frac{1}{2}$

12. 4% = 0.04 =  $\frac{1}{25}$

Write a proportion to find an equivalent ratio.

Answer the question.

13. It takes Mrs. Snow 2 hours to grade 50 math pages.  
At this rate, how long would it take her to grade 100 math pages?

$$\frac{2}{50} = \frac{4}{100}; 4 \text{ hr}$$

14. It takes Brian 25 minutes to complete a math page.  
At this rate, how long would it take him to complete 4 math pages?

$$\frac{25}{1} = \frac{100}{4}; 100 \text{ min or } 1 \text{ hr, } 40 \text{ min}$$

Use the spinner to find the answer.

1. What color is the spinner most likely to land on? Write a fraction and a percent to show the probability.

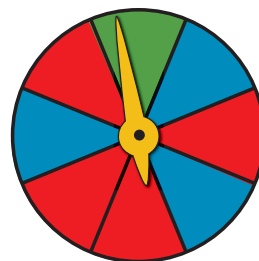
*red;  $\frac{4}{8}$ , 50%*

2. Find the probability of the spinner landing on blue. Write a fraction and a percent.

*$\frac{3}{8}$ ; 37.5%*

3. Find the probability of the spinner landing on green. Write a fraction and a percent.

*$\frac{1}{8}$ ; 12.5%*



Answer the questions.

4. What are the possible combinations for a pizza with two different toppings?

*{pm, po, ps, mo, ms, os}*

5. What is the number of possibilities?

*6*

pepperoni



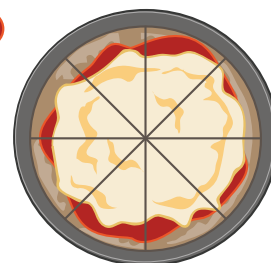
olives



sausage



mushrooms



Write the numbers in order from *least* to *greatest*.

1. 

0	-1	-3	4
---	----	----	---

  
-3 -1 0 4

2. 

15	0	-12	-8
----	---	-----	----

  
-12 -8 0 15

3. 

-15	15	13	-12
-----	----	----	-----

  
-15 -12 13 15

4. 

-8	-14	8	19
----	-----	---	----

  
-14 -8 8 19

Write a comparison sentence using  $>$ ,  $<$ , or  $=$ .

5.  $-30$   $<$   $29$

6.  $-21$   $<$   $0$

7.  $18$   $>$   $-45$

8.  $48$   $>$   $-48$

9.  $3 + -2$   $<$   $5$

10.  $-2 + -5$   $<$   $-4$

11.  $-3 + 7$   $>$   $-3 + 4$

12.  $8 - 2$   $=$   $10 + -4$

Find the sum.

13.  $-9 + -1 =$  -10

14.  $-8 + 5 =$  -3

15.  $7 + -4 =$  3

16.  $-9 + -5 =$  -14

Subtract.

17.  $8 - -2 =$  10

18.  $-3 - 8 =$  -11

19.  $9 - 15 =$  -6

20.  $-3 - -1 =$  -2