

# MATHHTASTIC

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### ANSWERS

*Add.*

$$\begin{array}{r} 47 \\ + 32 \\ \hline \end{array}$$

$$\begin{array}{r} 678 \\ + 426 \\ \hline \end{array}$$

$$\begin{array}{r} 4389 \\ 3377 \\ + 1689 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ 5 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2846 \\ + 1635 \\ \hline \end{array}$$

$$\begin{array}{r} 24,592 \\ + 46,268 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ 94 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2504 \\ 4241 \\ + 2173 \\ \hline \end{array}$$

$$\begin{array}{r} 587,938 \\ + 629,777 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ + 57 \\ \hline \end{array}$$

$$\begin{array}{r} 96 \\ 5748 \\ + 482 \\ \hline \end{array}$$

$$\begin{array}{r} 99,763,500 \\ + 2,827,449 \\ \hline \end{array}$$

*Subtract.*

1

$$\begin{array}{r} 47 \\ - 5 \\ \hline \end{array}$$

5

$$\begin{array}{r} 35 \\ - 8 \\ \hline \end{array}$$

9

$$\begin{array}{r} 776 \\ - 498 \\ \hline \end{array}$$

2

$$\begin{array}{r} 95 \\ - 31 \\ \hline \end{array}$$

6

$$\begin{array}{r} 652 \\ - 251 \\ \hline \end{array}$$

10

$$\begin{array}{r} 1904 \\ - 625 \\ \hline \end{array}$$

3

$$\begin{array}{r} 68 \\ - 62 \\ \hline \end{array}$$

7

$$\begin{array}{r} 821 \\ - 507 \\ \hline \end{array}$$

11

$$\begin{array}{r} 70,801 \\ - 62,762 \\ \hline \end{array}$$

4

$$\begin{array}{r} 87 \\ - 20 \\ \hline \end{array}$$

8

$$\begin{array}{r} 493 \\ - 37 \\ \hline \end{array}$$

12

$$\begin{array}{r} 1,344,192 \\ - 804,663 \\ \hline \end{array}$$

Multiply.

1

$$\begin{array}{r} 72 \\ \times 4 \\ \hline \end{array}$$

5

$$\begin{array}{r} 205 \\ \times 34 \\ \hline \end{array}$$

9

$$\begin{array}{r} 776 \\ \times 98 \\ \hline \end{array}$$

2

$$\begin{array}{r} 39 \\ \times 6 \\ \hline \end{array}$$

6

$$\begin{array}{r} 376 \\ \times 18 \\ \hline \end{array}$$

10

$$\begin{array}{r} 2309 \\ \times 278 \\ \hline \end{array}$$

3

$$\begin{array}{r} 81 \\ \times 57 \\ \hline \end{array}$$

7

$$\begin{array}{r} 800 \\ \times 30 \\ \hline \end{array}$$

11

$$\begin{array}{r} 3650 \\ \times 400 \\ \hline \end{array}$$

4

$$\begin{array}{r} 46 \\ \times 72 \\ \hline \end{array}$$

8

$$\begin{array}{r} 493 \\ \times 67 \\ \hline \end{array}$$

12

$$\begin{array}{r} 79,248 \\ \times 589 \\ \hline \end{array}$$

Divide. Round your answer to the hundredths place.

1

$$3 \overline{)156}$$

5

$$4 \overline{)1289}$$

9

$$28 \overline{)770}$$

2

$$7 \overline{)588}$$

6

$$9 \overline{)2230}$$

10

$$289 \overline{)5801}$$

3

$$6 \overline{)39}$$

7

$$36 \overline{)1620}$$

11

$$325 \overline{)6344}$$

4

$$5 \overline{)128}$$

8

$$61 \overline{)427}$$

12

$$76 \overline{)30,027}$$

Write in exponent form.

1  $8 \times 8 \times 8 \times 8 \times 8$

2  $267 \times 267$

3  $1 \times 1 \times 1 \times 1 \times 1$

4  $85$

Find the value.

5  $2^5$

6  $10^3$

7  $16^1$

8  $37^0$

Calculate.

9  $3^2 + 6 - 2 \times 7$

10  $7 \times (4^3 - 6) \div 2$

11  $2^4 \div 2^3 \times 3^5$

12  $124 - 3 \times (7 + 5^2)$

13  $20 \div 5 \times 2 - (6 + 2) \times 7$

Identify which of the following are improper fractions.

1 a)  $\frac{21}{2}$     b)  $\frac{4}{5}$     c)  $\frac{83}{126}$     d)  $\frac{7}{6}$

Change the mixed numbers to improper fractions.

2  $2\frac{4}{5}$

3  $6\frac{11}{17}$

4  $12\frac{8}{45}$

5  $9\frac{3}{61}$

6  $87\frac{41}{69}$

Change the improper fractions to mixed numbers.

7  $\frac{8}{3}$

8  $\frac{10}{7}$

9  $\frac{56}{17}$

10  $\frac{132}{11}$

11  $\frac{94}{93}$

*Find all of the factors.*

1 6

2 7

3 45

4 20

*Identify which of the following numbers are prime:*

5 a) 14   b) 4   c) 11   d) 9   e) 3   f) 17

*Find the prime factorization. Use exponents when applicable.*

6 12

7 60

8 18

9 33

10 105

11 125

12 42

*Find the LCM.*

1 2 and 5

2 2, 3 and 4

3 8 and 10

4 6 and 8

5 9 and 30

6 3, 5, and 6

7 2, 6, 8 and 12

8 3, 4 and 5

9 5, 15 and 20

10 40 and 180

11 108 and 72

12 6, 8 and 36

*Simplify to lowest terms.*

$$1 \quad \frac{3}{18}$$

$$2 \quad \frac{15}{25}$$

$$3 \quad \frac{6}{8}$$

$$4 \quad \frac{37}{37}$$

$$5 \quad \frac{66}{99}$$

$$6 \quad \frac{35}{42}$$

$$7 \quad \frac{100}{1000}$$

$$8 \quad \frac{50}{1000}$$

$$9 \quad \frac{7}{341}$$

$$10 \quad 2 \frac{6}{30}$$

$$11 \quad \frac{36}{12}$$

$$12 \quad 4 \frac{29}{29}$$

Add or subtract as indicated. Reduce to lowest terms.

$$1 \quad \frac{12}{17} + \frac{3}{17}$$

$$2 \quad \frac{11}{12} + \frac{1}{12}$$

$$3 \quad \frac{7}{10} + \frac{2}{10} + \frac{8}{10}$$

$$4 \quad \frac{1}{2} + \frac{2}{3}$$

$$5 \quad \frac{3}{8} + \frac{1}{2}$$

$$6 \quad \frac{5}{6} + \frac{1}{4}$$

$$7 \quad \frac{8}{11} - \frac{5}{11}$$

$$8 \quad \frac{7}{16} - \frac{5}{16}$$

$$9 \quad \frac{7}{9} - \frac{2}{3}$$

$$10 \quad \frac{2}{3} - \frac{1}{6}$$

$$11 \quad \frac{47}{50} - \frac{3}{10}$$

$$12 \quad \frac{1}{2} - \frac{1}{5}$$

Add or subtract as indicated. Reduce to lowest terms.

$$1 \quad 1\frac{1}{3} + 2\frac{1}{3}$$

$$2 \quad 3\frac{7}{8} + 1\frac{5}{8}$$

$$3 \quad 22\frac{16}{17} + 4$$

$$4 \quad 16\frac{3}{10} + 5\frac{9}{100}$$

$$5 \quad 2\frac{3}{5} + \frac{9}{10}$$

$$6 \quad 5\frac{1}{4} + 3\frac{5}{8} + 2\frac{1}{2}$$

$$7 \quad 2\frac{2}{3} - \frac{1}{3}$$

$$8 \quad 6\frac{1}{2} - 3$$

$$9 \quad 10 - 3\frac{2}{3}$$

$$10 \quad 9\frac{3}{8} - 5\frac{5}{6}$$

$$11 \quad 1\frac{1}{2} - \frac{7}{10}$$

$$12 \quad 2\frac{1}{2} - 1\frac{3}{4}$$

Multiply. Reduce to lowest terms.

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

$$2 \quad \left(\frac{5}{9}\right) \left(\frac{3}{10}\right)$$

$$3 \quad \frac{15}{4} \cdot \frac{12}{5}$$

$$4 \quad 6 \times \frac{2}{3}$$

$$5 \quad \left(\frac{3}{16}\right) (8)$$

$$6 \quad \left(\frac{3}{5}\right)^2$$

$$7 \quad 3\frac{7}{8} \cdot \frac{5}{6}$$

$$8 \quad \left(2\frac{1}{2}\right) \left(3\frac{1}{5}\right)$$

$$9 \quad \left(1\frac{1}{2}\right)^3$$

$$10 \quad 5\frac{5}{9} \times 2\frac{16}{25}$$

Divide. Reduce to lowest terms.

$$1 \quad \frac{1}{2} \div \frac{4}{5}$$

$$2 \quad \frac{4}{5} \div \frac{1}{2}$$

$$3 \quad \frac{3}{10} \div \frac{9}{10}$$

$$4 \quad \frac{3}{5} \div 6$$

$$5 \quad 7 \div \frac{1}{7}$$

$$6 \quad 1 \div \frac{1}{8}$$

$$7 \quad 5 \div \frac{2}{3}$$

$$8 \quad 6 \frac{2}{5} \div 20$$

$$9 \quad 2 \frac{3}{4} \div \frac{22}{25}$$

$$10 \quad 3 \frac{4}{5} \div 1 \frac{2}{15}$$

*Find the equivalent fraction. Reduce to lowest terms.*

1 0.3

2 0.8

3 0.5

4 3.2

5 0.41

6 18.25

7 0.108

8 1.001

9 4.0012

10 89.3205

*Add or subtract as indicated.*

1  $1.1 + 2.8$

2  $3.5 + 6.14$

3  $9.242 + 0.87$

4  $1.306 + 5.5 + 46.77$

5  $2.01 + 8 + 0.593$

6  $0.9 - 0.2$

7  $12.66 - 3.41$

8  $35.87 - 10.2$

9  $40.4 - 6.37$

10  $28 - 15.59$

*Multiply.*

$$\begin{array}{r} 1 \quad 0.7 \\ \times 0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \quad 0.12 \\ \times 0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \quad 31.002 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \quad 0.63 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \quad 0.0085 \\ \times 0.044 \\ \hline \end{array}$$

$$6 \quad 702 \cdot 3.19$$

$$7 \quad (1.504)(1000)$$

$$8 \quad (0.5)^2$$

$$9 \quad 3.4 \times 10$$

$$10 \quad 6.22701 \cdot 0.018$$

Divide. Round your answer to the hundredths place.

$$1 \quad 9 \overline{)211.5}$$

$$2 \quad 0.2 \overline{).31}$$

$$3 \quad 4.6 \overline{)58}$$

$$4 \quad 1.632 \div 0.08$$

$$5 \quad 8.709 \div 100$$

Write as an equivalent decimal. Round to the thousandths place.

$$6 \quad \frac{7}{8}$$

$$7 \quad \frac{5}{21}$$

$$8 \quad \frac{9}{10}$$

$$9 \quad \frac{43}{57}$$

$$10 \quad \frac{81}{20}$$

*Write each ratio as a fraction in lowest terms.*

1 30 feet to 60 feet

2 45 mph to 25 mph

3 6 minutes to 16 minutes

4 \$300 to \$450

*Write each rate as a fraction in lowest terms.*

5 48 gallons in 14 mins

6 21 females to 51 males

7 \$4.20 for 36 potatoes

8 72 correct answers out of 96 questions

---

*Find the unit rate.*

9 1500 meters in 6 seconds

10 192 miles per 6 gallons.

11 5 cars for 20 people

12 \$36 for 4 lbs of shrimp

Write each proportion.

1 48 is to 32 as 3 is to 2.

2 6 adults is to 10 children as 18 adults is to 30 children.

3 If 12 pens cost \$4, then 33 pens will cost \$11.

---

Determine if each proportion is true or false:

4  $\frac{2}{3} = \frac{7}{16}$

5  $\frac{48 \text{ acres}}{144 \text{ bags seed}} = \frac{5 \text{ acres}}{15 \text{ bags seed}}$

6  $\frac{12}{28} = \frac{18}{42}$

---

Solve each proportion to find the value of "x".

7  $\frac{3}{6} = \frac{x}{8}$

8  $\frac{52}{x} = \frac{4}{1}$

9  $\frac{15}{12} = \frac{10}{x}$

10  $\frac{18}{x} = \frac{2.4}{28}$

11  $\frac{3}{4} = \frac{x}{3.8}$

12  $\frac{x}{12} = \frac{2\frac{1}{3}}{5}$

*Write each percent as a fraction or mixed number. Simplify.*

1 21%

2 5%

3 14%

4 130%

5  $12\frac{1}{2}\%$

*Write each percent as a decimal.*

6 47%

7 26.3%

8 219%

9 .02%

10  $3\frac{1}{2}\%$

*Write each decimal as a percent.*

11 0.33

12 0.04

13 2.51

14 6.8

15 3

*Write each fraction as a percent.*

16  $\frac{3}{4}$

17  $\frac{2}{5}$

18  $\frac{1}{10}$

19  $\frac{1}{8}$

20  $2\frac{3}{5}$

*Solve.*

- 1 What is 35% of 200?
- 2 15% of what amount is 6?
- 3 30 is what percent of 20?
- 4 Find 102% of 2000.
- 5 What percent of 80 is 60?
- 6 14 is 70% of what number?
- 7 What is 0.5% of 3.2?
- 8 2.5 is what percent of 4?
- 9 5 is what percent of 15?
- 10 12.5% of 32 is what number?
- 11 What percent of 8.7 is 17.4?
- 12 What is 3.1% of 60?

*Convert.*

1 26 ft = \_\_\_\_\_ in

2 14 pt = \_\_\_\_\_ qt

3 9 yd = \_\_\_\_\_ ft

4 12 oz = \_\_\_\_\_ lb

5 3.5 gal = \_\_\_\_\_ qt

6 2.43 tons = \_\_\_\_\_ lb

7 250 min = \_\_\_\_\_ hr

8 5.5 mi = \_\_\_\_\_ yd

9 4 days = \_\_\_\_\_ hours

10 6600 ft = \_\_\_\_\_ mi

*Convert.*

1 2 L = \_\_\_\_\_ mL

2 24 kL = \_\_\_\_\_ L

3 420 g = \_\_\_\_\_ kg

4 1.5 g = \_\_\_\_\_ mg

5 80 m = \_\_\_\_\_ km

6 3500 mm = \_\_\_\_\_ m

7 400 cm = \_\_\_\_\_ mm

8 3.8 m = \_\_\_\_\_ cm

9 10,000 mL = \_\_\_\_\_ L

10 0.002 kg = \_\_\_\_\_ mg

*Refer to the circle graph in the tutorial to answer the following questions.*

- 1 What percent of caloric intake should be from fat?
  - 2 What is the ratio of protein to carbohydrates? Write in lowest terms.
  - 3 How many grams of carbohydrates should one have for every 6 grams of protein?
- 

*Refer to the line graphs in the tutorial to answer the following questions.*

- 4 In the year of highest overall video sales, approximately how many videos were sold?
  - 5 DVD sales exceeded VHS sales for the first time in what year?
  - 6 Write the ratio between VHS sales and DVD sales in 1997.
- 

*Refer to the bar graphs in the tutorial to answer the following questions.*

- 7 Which month had the greatest number of guests at the Dove Hotel?
  - 8 In which months did the majority of guests choose the mealplan?
  - 9 Approximately how many guests chose the mealplan in June?
- 

*Refer to the histogram in the tutorial to answer the following questions.*

- 10 Which age range (class interval) has the highest class frequency?
- 11 Which class interval has the lowest class frequency?
- 12 How many members of the club are between 1 and 20 years old?

*Find the mean.*

1 2, 6, 15, 3, 1, 8, 7

2 34, 57, 68, 12, 9

3 216, 103

---

*Find the median.*

4 2, 3, 8, 17, 21

5 102, 138, 194, 320, 322, 387, 569

6 15, 26, 1701

---

*Find the mode.*

7 2, 3, 3, 3, 3, 5, 7, 7, 9, 16, 16

8 16, 37, 82, 82, 95, 95, 95, 101, 123

9 2.1, 3.2, 3.2, 3.6, 3.9, 4.3

Fill in the operator ( $<$ ,  $>$  or  $=$ ) that makes the statement true.

1  $19 \underline{\quad} 5$

2  $-3 \underline{\quad} 3$

3  $0 \underline{\quad} -12$

4  $-7 \underline{\quad} -7$

5  $-22 \underline{\quad} -48$

Find the number equivalent to the following absolute values.

6  $|6|$

7  $|-5|$

8  $|0|$

9  $-|2|$

10  $-|-8|$

Find the opposite of each number.

11  $9$

12  $-34$

13  $0$

14  $-5.1$

15  $\frac{3}{7}$

Write TRUE or FALSE for each statement.

16  $|-8| > 0$

17  $|-2| = 2$

18  $|-6| < |-5|$

19  $3 < -(-4)$

20  $-|-9| > -|-15|$

*Find the sum or difference as indicated.*

1  $8 + (-2)$

2  $-7 + 10$

3  $5 + (-9)$

4  $-6 + (-3)$

5  $12 + (-12)$

6  $(-34) + 17 + (-88) + 5$

7  $-0.4 + 1$

8  $3 - 19$

9  $7 - (-4)$

10  $-5 - 5$

11  $-23 - 6$

12  $-2 + (-4) - 9 + 8$

13  $1 - (-1) + 6 + (-6) - 2$

14  $6.5 + (-8.3) - (-1.6) + 0.7 - 9.9$

Find the product.

1  $(3)(-6)$

2  $(-2)(-7)$

3  $-1 \cdot 15$

4  $4(-8)$

5  $(-2)^2$

6  $(5)(-3)(-9)(1)$

7  $(-1)^3$

8  $-86 \cdot (4) \cdot 0$

9  $\left(-\frac{5}{6}\right)\left(-\frac{2}{3}\right)$

10  $\left(-\frac{2}{7}\right)^3$

11  $\left(-\frac{1}{2}\right)^2 \cdot (-3)$

12  $2\frac{1}{2} \cdot \left(-\frac{1}{5}\right)$

Find the quotient. Simplify.

13  $-16 \div (-8)$

14  $-9 \div 9$

15  $-100 \div 10$

16  $20 \div (-4)$

17  $-52 \div (-1)$

18  $-1.5 \div 5$

19  $\frac{-1}{-2}$

20  $\frac{3}{-4}$

21  $\frac{-3}{4}$

22  $\frac{-6 - (-1)}{5}$

23  $7 \div \left(-\frac{1}{3}\right)$

24  $\frac{2(-0.3)^2}{-6}$

Evaluate each expression.

1 Let  $n = 3$        $12 + n$

2 Let  $S = 16$        $3S$

3 Let  $x = -7$        $-x + x$

4 Let  $p = -2$        $p^3$

5 Let  $m = 500$        $\frac{m}{100}$

6 Let  $q = 47$        $q \div 0$

---

Evaluate. Let  $x = -2$  and  $y = -3$

7  $x - y$

11  $2x^2y$

8  $xy$

12  $-xy$

9  $x^4 + y^3$

13  $(2xy)^2$

10  $\frac{x + y}{y - x}$

14  $\frac{4}{x + y - 1}$

Identify the property as commutative, associative or distributive.

1  $a + b = b + a$   
 $ab = ba$

2  $a + (b + c) = (a + b) + c$   
 $a(bc) = (ab)c$

3  $a(b + c) = ab + ac$   
 $a(b - c) = ab - ac$   
 $\frac{a + b}{c} = \frac{a}{c} + \frac{b}{c}$

---

Rewrite using the commutative property.

4  $x + y$

5  $t + 10$

6  $pq$

---

Rewrite using the associative property.

7  $(x + y) + z$

8  $x(yz)$

9  $7(ab)$

*Rewrite using the distributive property.*

$$10 \quad e(g + h)$$

$$11 \quad f(j - s)$$

$$12 \quad 5(a + b)$$

$$13 \quad 3(x + 6)$$

$$14 \quad 2(5x - 1)$$

$$15 \quad a(x + y + 4)$$

$$16 \quad \frac{e + f}{g}$$

$$17 \quad \frac{x + 8}{8}$$

---

*Rewrite by factoring.*

$$18 \quad ab + ac$$

$$19 \quad 2b + 2c$$

$$20 \quad 7x + 4x$$

$$21 \quad 15s - 11s$$

$$22 \quad ax + bx + cx$$

*Collect like terms to find an equivalent expression.*

1  $3x + 6x$

2  $8x + 4y - 5x - 7y$

3  $10x - x$

4  $-9x + x$

5  $13 + 5t + 6y - t - y - 2$

6  $a - 4a$

7  $8x - 5x + 3 + 2y - y - 1$

---

*Remove parentheses to find an equivalent expression.*

8  $-(3 + x)$

9  $-(5x + 7)$

10  $-(-2x - 6y + 4)$

11  $-(10x - 17)$

12  $-2(4x + 8)$

---

*Remove parentheses and collect like terms to find an equivalent expression.*

13  $6y - (5x - 2y + 8)$

14  $3a + 2a - (5a + 6)$

15  $5y - 2 - (2y - 4)$

16  $20a - 3(6a - 2)$

17  $[3(x + 2) + 2x] - [4(y + 2) - 3(y - 2)]$

*Solve using the addition principle.*

$$1 \quad x + 3 = -12$$

$$2 \quad m - 5 = -2$$

$$3 \quad -8 + y = 19$$

$$4 \quad z + 3.2 = 5.7$$

$$5 \quad e + \frac{1}{2} = 9$$

$$6 \quad 5 = q - 1\frac{1}{4}$$

$$7 \quad t - 14 = 0$$

$$8 \quad n + 7 = 3$$

$$9 \quad 40 = -2 + x$$

$$10 \quad 5 = b + 2\frac{1}{3}$$

*Solve using the multiplication principle.*

$$1 \quad 5x = 40$$

$$2 \quad 12y = 36$$

$$3 \quad -7y = 14$$

$$4 \quad 3s = -57$$

$$5 \quad \frac{1}{2}v = 45$$

$$6 \quad \frac{x}{4} = 3$$

$$7 \quad \frac{n}{2} = 11$$

$$8 \quad 1.7w = 6.8$$

$$9 \quad 3 = 7x$$

$$10 \quad \frac{a}{10} = 15$$

Solve for  $x$ .

$$1 \quad 9x - 5 = 13$$

$$2 \quad 3x + 12 = 24$$

$$3 \quad 8x - 2 = 4 + 5x$$

$$4 \quad 2(3x + 4) = x + 6$$

$$5 \quad \frac{5x}{7} = 8$$

$$6 \quad 6 - 2(x + 3) = 1 + 4x$$

$$7 \quad -8x - 10 = -3$$

$$8 \quad 7x + 3x - (10x + 2) = 5 + x$$

$$9 \quad \frac{x}{2} + 6 = 16$$

$$10 \quad 8 + 2(x - 7) = 0$$

Evaluate the following formulas. Use the given values to find the values of the remaining variables.

1  $P = 4s$                        $P = 64$                       *Find s.*

2  $A = \frac{x+y+z}{3}$                        $x = 5$                       *Find A.*  
 $y = 3$   
 $z = 4$

3  $A = \frac{x+y+z}{3}$                        $A = 6$                       *Find z.*  
 $x = 9$   
 $y = 2$

4  $F = \frac{9C}{5} + 32$                        $C = -20$                       *Find F.*

5  $P = 2L + 2W$                        $L = 8$                       *Find P.*  
 $W = 7$

6  $P = 2L + 2W$                        $P = 56$                       *Find W.*  
 $L = 12$

7  $d = rt$                                       *Find t.*

8  $P = a + b + c$                       *Find b.*

- 1 Jennifer has \$26 less than triple the savings of Matthew. Matthew has saved \$81. How much has Jennifer saved?
  
- 2 Mark has consumed  $\frac{1}{5}$  of a box of cookies, and Patricia has gobbled up another  $\frac{2}{3}$ . If the box originally had 60 cookies, how many are now left?
  
- 3 Harold has typed 14 more pages than Rebecca. Together they have typed a total of 138 pages. How many pages have each of them typed?
  
- 4 The sum of 3 consecutive whole numbers is 72. What are the 3 numbers?
  
- 5 Jerome ate  $\frac{4}{11}$  of the pizza. How much did that leave for Zachary?

Identify each of the following angles as right, straight, acute or obtuse.

1  $12^\circ$

2  $180^\circ$

3  $97^\circ$

4  $90^\circ$

5  $163^\circ$

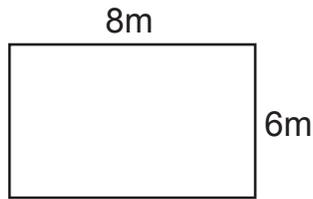
6  $89^\circ$

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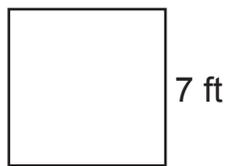
7  $\angle A$  and  $\angle B$  are congruent. If  $\angle A$  is  $50^\circ$ , what is the measurement of  $\angle B$ ?

8  $\angle E$  and  $\angle F$  are complimentary. If  $\angle E$  is  $35^\circ$ , what is the measurement of  $\angle F$ ?

9  $\angle S$  and  $\angle T$  are supplementary. If  $\angle S$  is  $98^\circ$ , what is the measurement of  $\angle T$ ?



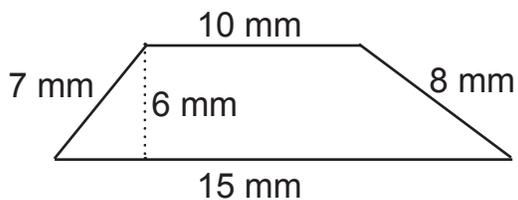
- 1 Find the perimeter of the rectangle.
  - 2 Find the area of the rectangle.
- 



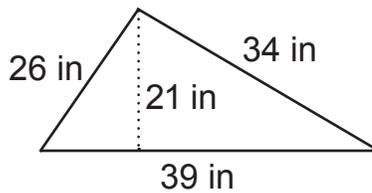
- 3 Find the perimeter of the square.
  - 4 Find the area of the square.
- 



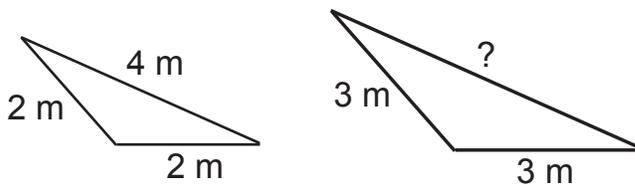
- 5 Find the perimeter of the parallelogram.
  - 6 Find the area of the parallelogram.
- 



- 7 Find the perimeter of the trapezoid.
  - 8 Find the area of the trapezoid.
- 
- 9 What is the sum of the angles of a quadrilateral?



- 1 Find the perimeter of the triangle.
  - 2 Find the area of the triangle.
- 

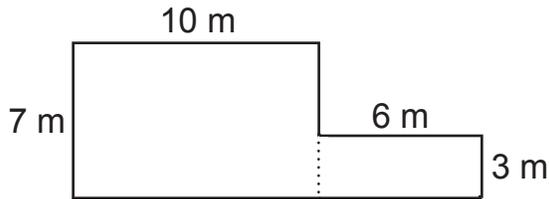


- 3 Find the missing side to the similar triangles.
- 
- 4 What is the sum of the angles of a triangle?
- 

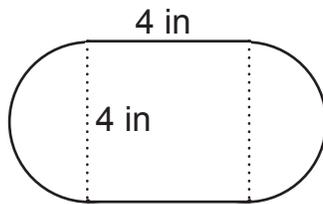
*Identify the type of each triangle according to its description.*

- 5 2 equal sides, 2 equal angles
- 6 3 acute angles
- 7 1 right angle
- 8 3 equal sides, 3 equal angles
- 9 no equal sides, no equal angles
- 10 1 obtuse angle

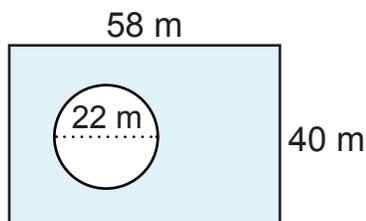
- 1 A circle has a diameter of 48 km. What is the radius?
- 2 Find the diameter of a circle whose radius is 10 miles.
- 3 What is the value of  $\pi$ , rounded to the hundredths place?
- 4 Find the circumference of a circle whose diameter is 19 m.
- 5 Find the circumference of a circle whose radius is 2.5 ft.
- 6 Find the area of a circle whose radius is 7 mm.
- 7 Find the area of a circle whose diameter is 18 yd.
- 8 Find the area of a semicircle whose radius is 5 cm.



- 1 Find the perimeter of the above figure.
  - 2 Find the area of the above figure.
- 



- 3 Find the perimeter of the above figure.
  - 4 Find the area of the above figure.
- 



- 5 Find the shaded area of the above figure.

*Find the volume of the following figures.*

- 1 A rectangular solid that is 6 mm long, 4 mm wide and 8 mm high.
  
- 2 A pyramid whose length = 12 ft, width = 7 ft, and height = 10 ft.
  
- 3 A cone whose radius = 4m, and height = 18 m.
  
- 4 A sphere with a radius of 6 km.
  
- 5 A hemisphere with a radius of 3 in.
  
- 6 A cylinder whose radius = 9 yd and height = 2 yd.