Fast Facts

See how many you can do in one minute!

20 ÷ 5 = _____	63 ÷ 7 = _____	27 ÷ 9 = _____	24 ÷ 2 = _____
42 ÷ 7 = _____	18 ÷ 3 = _____	24 ÷ 8 = _____	49 ÷ 7 = _____
21 ÷ 3 = _____	25 ÷ 5 = _____	56 ÷ 8 = _____	28 ÷ 7 = _____
64 ÷ 8 = _____	72 ÷ 9 = _____	18 ÷ 6 = _____	32 ÷ 4 = _____
72 ÷ 8 = _____	48 ÷ 6 = _____	36 ÷ 4 = _____	36 ÷ 6 = _____

Rational Numbers

1. If $4/5 ÷ 2/3 = \_$, then $2/3 \cdot \_ = 4/5$. Tell what would go in the blank to make this true.

2. What number on the number line is represented by the point P?
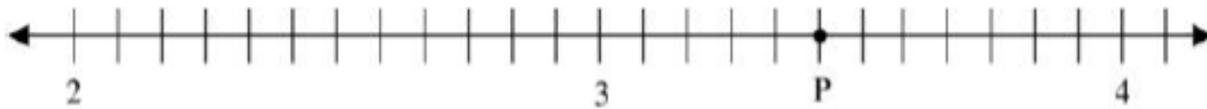
A. $\dfrac{5}{2}$

B. $3\dfrac{3}{4}$

C. $3\dfrac{5}{10}$

D. $3\dfrac{5}{12}$

Expressions and Equations

1. Justin tells Ali he has x number of cars. Ali has three more than twice this number of model cars. Which of the following expressions represents the number of model cars Ali has?

  a. $3x$

  b. $3 + x$

  c. $2(3 + x)$

  d. $3 + 2x$

Summer Math Program
Entering Seventh Grade
Week 2

Fast Facts
See how many you can do in one minute!

50 ÷ 10= _____	63 ÷ 9 = _____	54 ÷ 9 = _____	24 ÷ 12=_____
84 ÷ 7 = _____	36 ÷ 3 = _____	24 ÷ 3 = _____	42 ÷ 7 = _____
56 ÷ 8 = _____	45 ÷ 5 = _____	49 ÷ 7 = _____	25 ÷ 5 = _____
72 ÷ 8 = _____	48 ÷ 8 = _____	40 ÷ 4 = _____	36 ÷ 4 = _____
63 ÷ 7 = _____	72 ÷ 6 = _____	32 ÷ 8 = _____	81 ÷ 9 = _____

Fraction Actions
(For a Khan Academy lesson on multiplying mixed numbers, go to:
http://www.khanacademy.org/math/arithmetic/fractions/v/multiplying--mixed-numbers*)*

1. Multiply the following mixed numbers. Be sure to put your answers in simplest form (reduce).

$$1\frac{2}{3} \times 2\frac{9}{10} \underline{\hspace{1cm}}$$
$$2\frac{3}{4} \times 2\frac{8}{9} \underline{\hspace{1cm}}$$

$$3\frac{1}{2} \times 2\frac{3}{7} \underline{\hspace{1cm}}$$
$$2\frac{4}{5} \times 2\frac{10}{21} \underline{\hspace{1cm}}$$

2. Multiply these fractions.

$$\frac{2}{7} \times \frac{5}{12} \underline{\hspace{1cm}}$$
$$\frac{2}{3} \times \frac{3}{5} \underline{\hspace{1cm}}$$

$$\frac{4}{9} \times 36 \underline{\hspace{1cm}}$$
$$\frac{3}{4} \times \frac{4}{15} \underline{\hspace{1cm}}$$

$$\frac{3}{5} \times \frac{20}{21} \underline{\hspace{1cm}}$$
$$\frac{m}{n} \times \frac{x}{y} \underline{\hspace{1cm}}$$

↑*Extra Credit!! ☺ Hint: Use what you know about how to multiply fractions. Your answer will be a combination of variables.*

Rational Numbers

1. What does this fraction mean? $\dfrac{-7}{5}$

   a. -7 minus 5

   b. -7 plus 5

   c. -7 times 5

   d. -7 divided by 5

2. Solve these operations with integers.

   -8 + +3 = _____   +7 - +4 = _____   -4 + -4 = _____

   +15 - -6 = _____   -2 x +5 = _____   +24 ÷ -8 = _____

Expressions and Equations

1. Solve x + 12 = 23. Show all your work. Justify your solution (explain what you did and why you did it).

   Work Space   Explanation

_____

_____

_____

2. Jason had *c* cookies in his lunch bag. He ate 3 cookies. Write an algebraic expression to represent the number of cookies left in the bag.

3. Sam is an inch taller than twice the height of Al. If Al's height is A, which expression represents Sam's height?

   a. 1A + 2

   b. 2A + 1

   c. 2(A + 1)

   d. 2(A - 1)

Web Links

Try these web sites for additional practice and interactive learning!

- Computation Castle http://www.mrnussbaum.com/castle/index2.html
- Evaluating Expressions
  http://www.math.com/school/subject2/practice/S2U2L3/S2U2L3Pract.html

Summer Math Program
Entering Seventh Grade
Week 3

Fast Facts
See how many you can do in one minute!

50 ÷ 10= _____   63 ÷ 9 = _____   54 ÷ 9 = _____   24 ÷ 12=_____

84 ÷ 7 = _____   36 ÷ 3 = _____   24 ÷ 3 = _____   42 ÷ 7 = _____

56 ÷ 8 = _____   45 ÷ 5 = _____   49 ÷ 7 = _____   25 ÷ 5 = _____

72 ÷ 8 = _____   48 ÷ 8 = _____   40 ÷ 4 = _____   36 ÷ 4 = _____

63 ÷ 7 = _____   72 ÷ 6 = _____   32 ÷ 8 = _____   81 ÷ 9 = _____

Perfecting Percents
(For a Khan Academy lesson on percentages, go to:
http://www.khanacademy.org/math/arithmetic/percents/v/solving-percent-problems*)*

1. Find each number.

   10 is 20% of what number?   30% of what number is 60?

   _____   _____

   110% of 78   65% of 80

   _____   _____

2. Find each percent.

   What percent of 200 is 98?   17 is what percent of 68?

   _____   _____

3. Ryan and his grandfather both collect baseball cards. Together, they have a total of 1,200 cards. Ryan calculates that 20% of the cards are his own. How many cards are his grandfather's? How many cards does Ryan have?

   _____   _____

4. Find 20% of each number.

50 _____   136 _____   1,890 _____

5. Solve.

The bill for dinner was $76. Chuck left a 20% tip. How much was the tip? _____

Carol likes to leave 10% of one night's stay for the cleaning crew at a hotel. If the Highfield Hotel charges $155 per night, how much did Carol leave for the cleaning crew? _____

Awesome Algebra!

Solve using inverse operations.

1. $z + 24 = 32$ _____   **2.** $6m = 48$ _____   **3.** $d - 37 = 23$ _____

4. $k \div 5 = 22$ _____   **5.** $g - 72 = 15$ _____   **6.** $f + 267 = 645$ _____

Expressions and Equations

1. How should you solve the equation 5x = 25?

   a. Subtract 5 from both sides of the equation.
   b. Subtract 5 from the left side and 20 from the right side.
   c. Divide both sides of the equation by 5.
   d. Divide the left side by x and the right side by 5.

2. Tammy says that the equation 50x = 1350 is the same as 10x = 270? How could she prove this?

   a. She could subtract 40x from the first equation to get the second equation.
   b. She could add 50x and 10x, and 1350 and 270.
   c. She could divide both sides of the first equation by 5 to get the second equation.
   d. She could find the ratio of 1350 to 270.

Web Links

Try these web sites for additional practice and interactive learning!

- Math Playground Thinking Blocks Ratios

  http://www.mathplayground.com/NewThinkingBlocks/thinking_blocks_ratios.html
- EduPlace Brain Teasers

  http://www.eduplace.com/kids/mw/bt/bt_6.html

Summer Math Program
Entering Seventh Grade
Week 4

Fast Facts
See how many you can do in one minute!

32 ÷ 8 = _____	50 ÷ 10= _____	63 ÷ 9 = _____	84 ÷ 7 = _____
36 ÷ 3 = _____	42 ÷ 7 = _____	24 ÷ 3 = _____	48 ÷ 8 = _____
45 ÷ 5 = _____	49 ÷ 7 = _____	81 ÷ 9 = _____	40 ÷ 4 = _____
72 ÷ 8 = _____	24 ÷ 12= _____	56 ÷ 8 = _____	54 ÷ 9 = _____
36 ÷ 4 = _____	63 ÷ 7 = _____	72 ÷ 6 = _____	25 ÷ 5 = _____

Awesome Algebra!

For a Khan Academy lesson on the basics of algebraic expressions and equations, go to:
http://www.khanacademy.org/math/algebra/solving-linear-equations/v/variables-expressions-and-equations. *Then for videos on solving algebraic equations, go to*
http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-one-step-equations *and* http://www.khanacademy.org/math/algebra/solving-linear-equations/v/solving-one-step-equations-2

Write an algebraic expression for each. Then evaluate, given $n = 12$.

1. 8.5 more than n

2. $7\frac{1}{2}$ less than n

3. 5 more than the difference of n minus $^-5$

4. the sum of n and 8 divided by $^-4$

5. n less than $^-9$

6. the product of n and 3

7. Which algebraic expression is the same as "6 less than three times a number n."

   A $6 - 3n$ **C** $(3 - n) \times 6$

   B $3n - 6$ **D** $(n - 3) \times 6$

8. What is the value of $2n - 12\frac{3}{4}$, given $n = \frac{1}{4}$?

_____

Write each equation in words then solve for the variable.

1. $2n - 8 = 14$ _____

_____

2. $n + 9 = 32$ _____

_____

3. $w + 16 = 29$ _____

_____

4. $16.5 + y = 37.9$ _____

_____

Simplify the following:

$$3x + 4 - 2x + 6$$

a. $x + 10$
b. $x - 2$
c. $5x - 2$
d. $11x$

Select the equation that correctly expresses the relationship shown in the table between what a person is paid and the number of hours she works.

Pay	Hours (H)
$5.35	1
$10.70	2
$16.05	3

a. $5.35 \times H$
b. $H + 5.35$
c. $5.35 \div H$
d. 5.35

Web Links

Try these web sites for additional practice and interactive learning!

- Lemonade Stand – interactive site with economics in mind
  http://www.lemonadestands.com/
- Ratio Martian Game – site for identifying ratios
  http://www.mathplayground.com/ASB_RatioMartian.html

Fast Facts

See how many you can do in one minute! (Put answers in simplest form.)

$$\frac{10}{12} + \frac{4}{9} =$$

$$\frac{2}{8} + \frac{3}{5} =$$

$$\frac{1}{2} + \frac{10}{12} =$$

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

$$\frac{1}{5} + \frac{9}{11} =$$

$$\frac{5}{7} + \frac{3}{10} =$$

$$\frac{2}{10} + \frac{6}{11} =$$

$$\frac{5}{6} + \frac{6}{10} =$$

$$\frac{2}{10} + \frac{2}{4} =$$

Equations, Equations!

Find the unknown quantity that makes the equation true.

$$\frac{4}{5} \times \underline{\hspace{1cm}} = 1$$

$$\frac{4}{5} \times \frac{3}{2} = \frac{3}{2} \times \underline{\hspace{1cm}}$$

Solve.

1. $b - 18 = 24$

_____

2. $m + 29.6 = 50.4$

_____

3. $t + 20 = 56$

_____

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

_____

5. $28 = a - 32$

_____

6. $16 = v + 9$

_____

7. $m + 6 = 12 + 15$

_____

8. $k + 9 - 2 = 17$

_____

Fraction Action

For a Khan Academy lesson on how to divide fractions, go to:
http://www.khanacademy.org/math/arithmetic/fractions/v/dividing-fractions-example. Then
for a lesson on dividing fractions with word problems, go to
http://www.khanacademy.org/math/arithmetic/fractions/v/dividing-fractions-word-problem.

Find each quotient. Write each quotient in simplest form.

1. $\dfrac{3}{5} \div \dfrac{2}{3}$

2. $\dfrac{5}{8} \div \dfrac{1}{8}$

3. $\dfrac{5}{3} \div 6$

4. $\dfrac{5}{12} \div \dfrac{1}{4}$

5. Which multiplication problem is the same as the division problem $\dfrac{2}{3} \div \dfrac{8}{9}$?

   A $\dfrac{2}{3} \times \dfrac{8}{9}$ **C** $\dfrac{3}{2} \times \dfrac{8}{9}$

   B $\dfrac{2}{3} \times \dfrac{9}{8}$ **D** $\dfrac{3}{2} \times \dfrac{9}{8}$

6. *Answer the following word problem by writing an equation then solving.*

Daniel just found beautiful yarn for 5 percent off at his favorite yarn store. He can make 1 scarf from 2/5 of a ball of yarn.

If Daniel buys 8 balls of yarn, how many scarves can he make?

Equation: _____

Solution: _____

Web Links

Try these web sites for additional practice and interactive learning!

- Extra practice for integers and algebra
  http://www.eduplace.com/kids/mw/practice/6/ep6_04.html
- Orbit Integers
  http://www.mathplayground.com/ASB_OrbitIntegers.html

Fast Facts

See how many you can do in one minute! (Put answers in simplest form.)

$$\frac{8}{11} \times \frac{5}{6} =$$ $\qquad$ $$\frac{2}{2} \times \frac{5}{6} =$$ $\qquad$ $$\frac{5}{8} \times \frac{12}{12} =$$

$$\frac{3}{4} \times \frac{4}{5} =$$ $\qquad$ $$\frac{3}{5} \times \frac{1}{8} =$$ $\qquad$ $$\frac{3}{4} \times \frac{2}{2} =$$

$$\frac{1}{2} \div 4 =$$ $\qquad$ $$\frac{1}{7} \div 6 =$$ $\qquad$ $$\frac{2}{5} \div 9 =$$

Probability is Probable

For a Khan Academy lesson on basic probability, go to:
http://www.khanacademy.org/math/probability/v/basic-probability. Then, for a video on
computing the events from simple experiments with probability, go to:
http://www.khanacademy.org/math/probability/v/simple-probability.

Solve the following probability problems.

A jar contains 50 marbles that are the same size. There are 15 blue, 8 yellow, and 27 red marbles. Find each probability, expressing the probability as a fraction, decimal, and percent.

1. P(blue) _____

2. P(yellow) _____

3. P(red) _____

4. P(green) _____

5. P(not blue) _____

6. P(not yellow) _____

7. P(not red) _____

8. P(red or yellow) _____

9. P(not green) _____

10. To win a game, Jarrod must roll a sum of 12 on two 1–6 number cubes twice in a row. What is the probability that Jarrod will win the game?

_____

For tossing a number cube and spinning the spinner below, find each probability.

1. P(3 and blue)

_____

2. P(odd number and red)

_____

3. P(number less than 3 and yellow)

_____

4. P(1 and not red)

_____

5. P(2 and not blue)

_____

6. P(multiple of 3 and purple)

_____
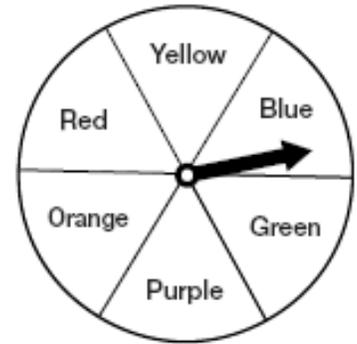
Cool Conversions

1. A rod is 3 m long. How long is it in mm?

2. Becky's backyard is 50 feet wide. How many yards wide is her backyard?

3. A rectangle has sides of 3 feet and 4 feet. Its area is 12 square feet. What is the area of this rectangle in square inches?

4. John has ordered 15 square yards of carpet for his living room. How many square feet of carpet is this?

5. Sarah would like to fence in her back yard. She needs 210 feet of fencing to do this. How many yards of fencing would she need?

RANDOM RATIOS

Write two equivalent ratios for each given ratio by scaling up and scaling down. One is done for you.

RATIO	SCALE UP	SCALE DOWN
1. 8 to 12	16 to 24	4 to 6
2. 5 to 15	_____	_____
3. 3 to 9	_____	_____

Use equivalent ratios to find each missing term.

4. $\frac{2}{3} = \frac{n}{9}$

_____

5. $\frac{1}{6} = \frac{6}{n}$

_____

6. $\frac{24}{n} = \frac{8}{2}$

_____

7. $\frac{n}{18} = \frac{2}{3}$

_____

8. $\frac{3}{n} = \frac{9}{45}$

_____

9. $\frac{45}{81} = \frac{5}{n}$

_____

Answer the following questions about ratios.

10. Your class photo is 2 inches by 3 inches. Your mother wants to make each side 3 times larger. What are the new dimensions?

11. You have a photograph with dimensions of 8 inches by 12 inches. You would like to reduce the length of each side to 1/4 of its original size. Which of the following are the correct new dimensions?

    a. 2 inches by 3 inches
    b. 2 inches by 4 inches
    c. 3 inches by 5 inches
    d. 4 inches by 6 inches

Web Links

Try these web sites for additional practice and interactive learning!

- Extra practice for geometry
  http://www.eduplace.com/kids/mw/practice/6/ep6_05.html
- Dirt Bike Proportions
  http://www.mathplayground.com/ASB_DirtBikeProportions.html

Exciting Extras

The following resources are to help your mathematician with fractions and math fluency. Please use the fraction strips (last page) to compare fractions (e.g., ¾ is bigger than ½ but smaller than 5/6), find equivalent fractions (e.g., 5/10 is equal to ½ which is equal to 3/6), and for familiarity with how big or little fractions are relative to one whole. The link below takes you to a website for age-appropriate flashcards you can print and use to practice math fluency. Enjoy!!

http://www.helpingwithmath.com/resources/oth_flashcards.htm

Fraction Strips

1 Whole											

| $\frac{1}{2}$ | | | | | | $\frac{1}{2}$ | | | | | |

| $\frac{1}{3}$ | | | | $\frac{1}{3}$ | | | | $\frac{1}{3}$ | | | |

| $\frac{1}{4}$ | | | $\frac{1}{4}$ | | | $\frac{1}{4}$ | | | $\frac{1}{4}$ | | |

| $\frac{1}{5}$ | | $\frac{1}{5}$ | | $\frac{1}{5}$ | | $\frac{1}{5}$ | | $\frac{1}{5}$ | | | |

| $\frac{1}{6}$ | | $\frac{1}{6}$ | | $\frac{1}{6}$ | | $\frac{1}{6}$ | | $\frac{1}{6}$ | | $\frac{1}{6}$ | |

| $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | $\frac{1}{8}$ | | | | |

| $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | $\frac{1}{10}$ | | |

| $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ | $\frac{1}{12}$ |

Fast Facts

See how many you can do in one minute! (Put answers in simplest form.)

$\dfrac{10}{12} + \dfrac{4}{9} =$ $\dfrac{5}{6} + \dfrac{6}{10} =$ $\dfrac{5}{7} + \dfrac{1}{10} =$

$\dfrac{4}{5} + \dfrac{1}{2} =$ $\dfrac{1}{2} + \dfrac{10}{12} =$ $\dfrac{2}{3} + \dfrac{3}{11} =$

$\dfrac{2}{10} + \dfrac{6}{11} =$ $\dfrac{5}{7} + \dfrac{3}{10} =$ $\dfrac{5}{9} + \dfrac{2}{8} =$

$\dfrac{2}{8} + \dfrac{3}{5} =$ $\dfrac{2}{10} + \dfrac{2}{4} =$ $\dfrac{2}{11} + \dfrac{8}{11} =$

Intriguing Integers

For a Khan Academy lesson on adding and subtracting negative numbers, go to: http://www.khanacademy.org/math/arithmetic/negative-numbers/v/adding-subtracting-negative-numbers. Then, for a video on multiplying and dividing positive and negative numbers, go to: http://www.khanacademy.org/math/arithmetic/negative-numbers/v/multiplying-positive-and-negative-numbers.
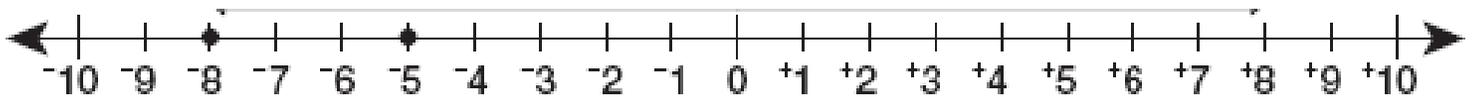
Add. Use a number line to help you.

$^{+}2 + {}^{+}4$ _____ $^{+}18 + {}^{+}15$ _____ $^{-}19 + {}^{+}17$ _____

$^{+}4 + {}^{-}5$ _____ $^{+}24 + {}^{-}27$ _____ $^{-}14 + {}^{-}32$ _____

Subtract. Use a number line to help you.

$^-9 - {}^+4$ _____ 　 $^+9 - {}^+7$ _____ 　 $^+8 - {}^-12$ _____

$^+8 - {}^+17$ _____ 　 $^+12 - {}^+15$ _____ 　 $-20 - {}^-15$ _____

Multiply or divide.

$^-6 \times {}^-6$ 　 $^+18 \div {}^+3$ 　 $^+9 \times {}^-8$ 　 $^-49 \div {}^+7$

_____ 　 _____ 　 _____ 　 _____

Explain how subtracting a negative integer is like adding.

_____

_____

_____

What's Your Rate?

1. If you biked 120 miles in 30 days, how many miles per day did you bike?

2. If you ride a bike 40 miles in 5 hours, how fast were you biking?

3. If you eat 300 hot dogs in 60 days, how many hot dogs per day did you eat, on average?

4. If you save $20 per month, how much will you save in 3 years?

FRACTION STORY PROBLEMS

1. April wants to save $\frac{4}{5}$ of all money she earns walking dogs on the weekend. If she made $40 on Saturday, how much should she save?

   _____

2. Robert needs $8\frac{1}{3}$ feet of board to make one bookcase. How long of a piece would he need to make 3 bookcases?

   _____

3. Ian has $4\frac{1}{2}$ cups of flour he wants to split up among $3\frac{1}{2}$ recipe portions. How much flour will be in each portion? Explain how you got your answer.

   _____

Web Links

Try these web sites for additional practice and interactive learning!

- Math Fact Practice!
  http://www.playkidsgames.com/games/mathfact/mathFact.htm
- e-learning For Kids
  http://www.e-learningforkids.org/courses.html#math

Fast Facts
See how many you can do in one minute!

(-54)	÷	(+6)	=		(+2)	x	(+7)	=
(-8)	÷	(-2)	=		(-7)	-	(+3)	=
(0)	÷	(0)	=		(-9)	+	(-3)	=
(-3)	+	(-8)	=		(-9)	-	(-1)	=
(-5)	-	(-1)	=		(+1)	x	(+5)	=
(-5)	-	(0)	=		(+1)	x	(+8)	=
(+4)	-	(+6)	=		(-2)	-	(-7)	=

Powerful Powers!!

For a Khan Academy lesson on scientific notation, go to:
http://www.khanacademy.org/math/algebra/exponents-radicals/v/scientific-notation-1.

Express each number in scientific notation in standard form.

$2,300 \times 10^1 =$ $60 \times 10^1 =$

$3 \times 10^2 =$ $4 \times 10^2 =$

$50 \times 10^2 =$ $91 \times 10^2 =$

$52 \times 10^3 =$ $96 \times 10^3 =$

$7,800 \times 10^3 =$ $8,600 \times 10^3 =$

Solve the exponents.

1) $(8)^2$ = _____

3) $(-6)^2$ = _____

2) $(3)^3$ = _____

4) $(-3)^2$ = _____

Evaluate each expression.

1. $3 + 8 \div 9$

2. $(16 + 2) \div 2.5$

3. $\frac{1}{4} \times 2 + 3^2$

_____ _____ _____

4. $0.12 \div (4 + 2)$

5. $(4.5 - 1\frac{1}{4})^2$

6. $2.3 \times 1\frac{1}{4} - 1.2$

_____ _____ _____

Algebra Anyone??

1. Find the value of the variable.

$n + 2\frac{3}{4} = 4$ _____

$n - \frac{3}{4} = \frac{1}{12}$ _____

$\frac{2}{3} \div n = \frac{3}{4}$ _____

$6 \div \frac{1}{3} = n$ _____

2. Use equivalent ratios to find each missing term.

$\frac{2}{3} = \frac{n}{9}$

$\frac{1}{6} = \frac{6}{n}$

$\frac{24}{n} = \frac{8}{2}$

_____ _____ _____

$\frac{n}{18} = \frac{2}{3}$

$\frac{3}{n} = \frac{9}{45}$

$\frac{45}{81} = \frac{5}{n}$

_____ _____ _____

Write an algebraic expression for each. Then evaluate, given n = 12.

1. 8.5 more than n

2. $7\frac{1}{2}$ less than n

3. 5 more than the difference of n minus $^-5$

4. the sum of n and 8 divided by $^-4$

5. n less than $^-9$

6. the product of n and 3

7. 14 more than n minus $^-3$

8. $\frac{1}{3}$ of n

9. twice n plus $^-2$

10. $^-8$ less than n

Write as an equation.

1. Five times a number equals 75.

   _____

2. 18 more than a number equals 29.

   _____

3. 15.6 less than a number equals 29.7.

   _____

4. A number divided by 14 equals 26.

   _____

5. A number divided by $^-9$ equals 15.

   _____

6. $1\frac{4}{5}$ more than a number equals $2\frac{4}{5}$.

   _____

7. 8 less than a number equals 14.

   _____

8. Four times a number equals 28.

   _____

9. A number divided by 17 equals 8.

   _____

10. Twenty less than a number equals 52.

    _____

Write each equation in words.

11. $2n - 8 = 14$

    _____

12. $n + 9 = 32$

    _____

13. $n \div 16 = 29$

    _____

14. $5n = {}^-50$

    _____

TRANSLATIONS

Identify the coordinates of △MNO after each transformation.
Use △XYZ for the transformed triangle.

1. Translate 4 units left.

   _____

2. Translate 3 units up.

   _____

3. Translate 7 units right, then 2 units down.

   _____

4. Reflect across the x-axis.
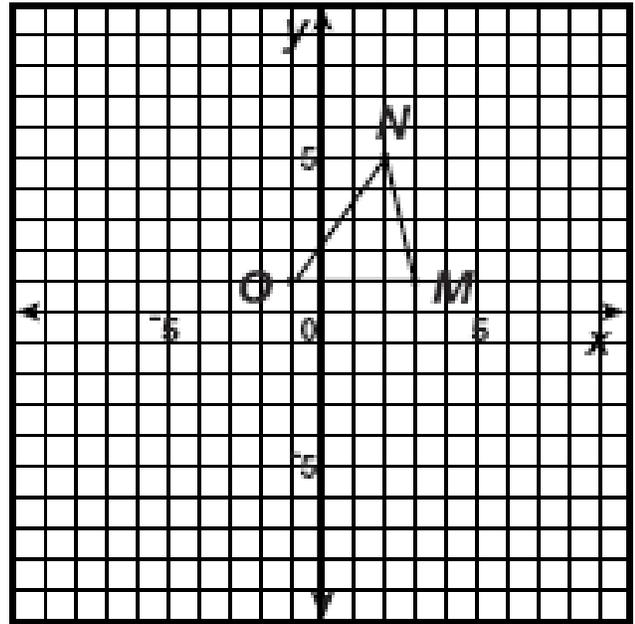
   _____

Web Links

Try these web sites for additional practice and interactive learning!

- Math Live
  http://www.learnalberta.ca/content/me5l/html/math5.html
- Learn Your Tables
  http://www.learnyourtables.co.uk/

Fast Facts

See how many you can do in one minute!

(+4)   +   (-5)   =   (+7)   -   (+6)   =

(+1)   +   (-6)   =   (+7)   +   (-9)   =

(-7)   -   (-2)   =   (+10) ÷   (-2)   =

(+1)   x   (0)   =   (+72) ÷   (-9)   =

(+7)   x   (+8)   =   (-32) ÷   (-8)   =

(-2)   x   (-2)   =   (-6)   x   (+1)   =

(-1)   -   (-7)   =   (-1)   +   (-3)   =

Absolutely Absolute Value!

For a Khan Academy lesson on absolute value, go to:

http://www.khanacademy.org/math/algebra/absolute-value/v/absolute-value-and-number-lines .

Find the absolute value.

|2| = _____ |-25| = _____

|-5| = _____ |-42| = _____

|-7| = _____ |22| = _____

|18| = _____ |-6| = _____

Fractions, Decimals, Ratios, & Percents

Find the value of each percent.

35% of 31   36% of 74   64% of 41   33% of 40

What is greater? Use <, >, or = for each pair.

46% of 86 ___ 43% of 26   95% of 58 ___ 35% of 24

Find each sum.

$$
\begin{array}{r} 64.81 \\ +\ 69.33 \\ \hline \end{array}
\qquad
\begin{array}{r} 36.31 \\ +\ 92.27 \\ \hline \end{array}
\qquad
\begin{array}{r} 45.43 \\ +37.31 \\ \hline \end{array}
\qquad
\begin{array}{r} 40.83 \\ +\ 60.82 \\ \hline \end{array}
\qquad
\begin{array}{r} 14.84 \\ +80.13 \\ \hline \end{array}
$$

Find each difference.

$$
\begin{array}{r} 8.02 \\ -5.24 \\ \hline \end{array}
\qquad
\begin{array}{r} 7.42 \\ -7.33 \\ \hline \end{array}
\qquad
\begin{array}{r} 3.91 \\ -1.35 \\ \hline \end{array}
\qquad
\begin{array}{r} 6.73 \\ -3.67 \\ \hline \end{array}
\qquad
\begin{array}{r} 7.51 \\ -2.16 \\ \hline \end{array}
$$

Find each product.

$$
\begin{array}{r} 59 \\ \times\ 0.75 \\ \hline \end{array}
\qquad
\begin{array}{r} 5.8 \\ \times\ 4.6 \\ \hline \end{array}
\qquad
\begin{array}{r} 52 \\ \times\ 0.93 \\ \hline \end{array}
\qquad
\begin{array}{r} 4.1 \\ \times\ 0.23 \\ \hline \end{array}
$$

Calculate the following quotients.

$2.05 \overline{)8.9995}$ $6.29 \overline{)38.1174}$ $5.16 \overline{)8.6688}$ $2.43 \overline{)4.2039}$

FRACTIONS IN ACTION

Solve the follow problems by writing a mathematical statement (equation) to represent the situation.

Problem and Answer   Work and Statement

1. Ian has $4\frac{1}{2}$ cups of flour he wants to split up among $3\frac{1}{2}$ recipe portions. How much flour will be in each portion? Explain how you got your answer.

    _____

2. Roland is cutting strips of fabric to make streamers for the school's renaissance fair. Each streamer is $5\frac{1}{4}$ inches wide.

    _____

3. When planting trees in a forest, the U.S. Forest Service recommends giving each seedling about $\frac{1}{200}$ acre on which to grow.

    _____

Algebraic Story Problems

1. Janice is comparing two snowboards. The shorter board is 124 cm long. Write an expression that shows the length of the longer board. Let *a* represent the difference between the lengths of the two boards.

_____

2. Rita also wants a snowboard that reaches between her chin and her nose. She measures the height of her chin as 126 cm. Write an expression that represents how much higher the board is than Rita's chin level. Let *c* represent the height of the board.

_____
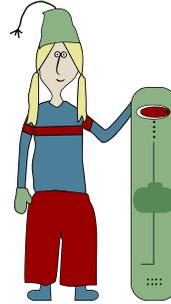
3. A symphony is divided into three movements. The second movement is 4 minutes longer than the first. The third movement is twice as long as the first. The full symphony is 40 minutes long. Write an equation to show the length of each movement.

_____

4. Lizbeth is writing background music for a video her brother made. The video is $6\frac{1}{2}$ minutes long. So far, she has written $3\frac{3}{4}$ minutes of music. To find out how much more music she needs to write, she uses the equation $n - 6\frac{1}{2} = 3\frac{3}{4}$. Is that the right equation to use? Why or why not?

_____

Web Links

Try these web sites for additional practice and interactive learning!

- Spider Match
  http://www.mathplayground.com/ASB_SpiderMatchIntegers.html
- Find a Friend
  http://www.eduplace.com/kids/mw/swfs/faf_grade6.html

Fast Facts

See how many you can do in one minute!

(0) + (+9) =		(-8) + (-9) =	
(+30) ÷ (-6) =		(-6) - (+4) =	
(-1) x (-5) =		(0) - (+3) =	
(-7) + (-5) =		(+3) x (+1) =	
(-3) x (+1) =		(+4) x (+8) =	
(0) x (0) =		(+1) ÷ (+1) =	
(+24) ÷ (-8) =		(+1) x (+3) =	

What's Your Angle?

For a Khan Academy lesson on basic properties of angles go to:
http://www.khanacademy.org/math/geometry/angles/v/angles--part-2.

Use the diagram to give an example of each.

1. a pair of complementary angles

   _____

2. a pair of supplementary angles

   _____

3. an interior angle of the triangle

   _____

4. an exterior angle of the triangle

   _____
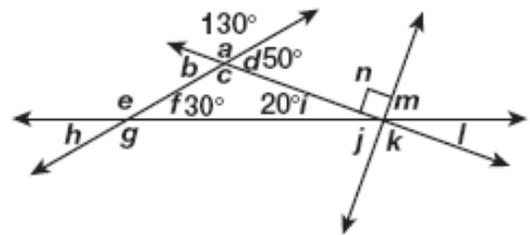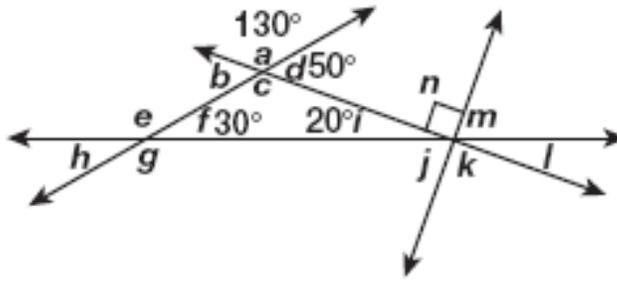
Find the degree measure of each angle.

5. ∠b _____

6. ∠c _____

7. ∠e _____

8. ∠h _____

9. ∠j _____

10. ∠k _____

Use the diagram to give two examples of each.

1. a pair of vertical angles

_____

2. a pair of alternate interior angles

_____

3. a pair of alternate exterior angles

_____
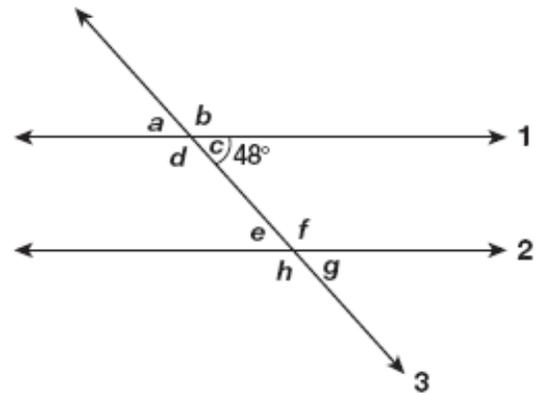
Find the measure of each angle.

4. ∠a

5. ∠b

6. ∠d

Use the diagram to find each angle measure.

1. a _____

2. b _____

3. c _____

4. d _____
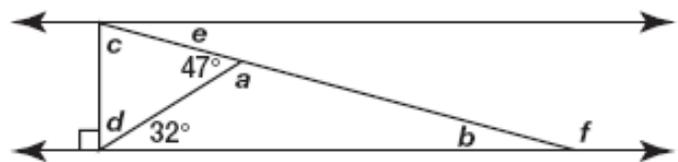
Problem Solving with Ratios and Percents

Solve the following problems. Show your work on the right-hand side.

1. Roberta is planning a mural. She starts by making a sketch. The sketch is 40 inches wide and 55 inches tall. The mural will be 30 feet wide. How tall will it be?

   _____

2. For her sketch, Roberta mixed a shade of green using 3 tubes of yellow paint and 2 tubes of blue paint. She wants to use this same shade in the mural. If she has 6 gallons of blue, how many gallons of yellow does she need?

   _____

3. A drawing shows a scale 1 inch : $\frac{1}{8}$ inch. What length is represented by 3 inches on the drawing? Explain how you found your answer.

   _____

4. In a survey of 200 students, 40 liked pizza, 60 liked stew, and 100 liked meatloaf best for lunch. What percent liked pizza best?

   _____

5. Teri spent $8 on lunch, $12 on a movie, and $5 on a scarf. What percent of the money she spent was on lunch? Explain.

   _____

GEOMETRY

**Draw a net for each solid figure or identify the solid figure each net represents.**

1.

2.

3.

4.
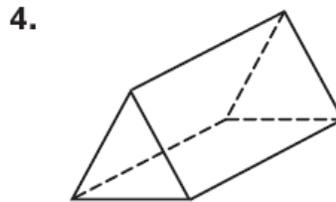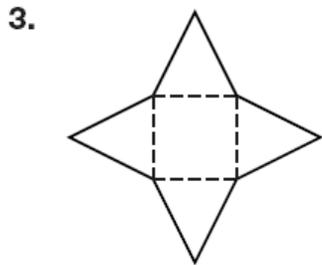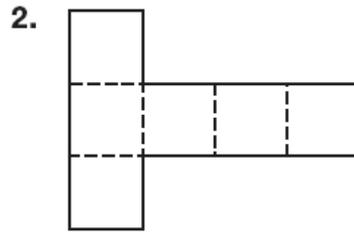
Find the volume of each rectangular prism.

1.
4 in.
4 in.
12 in.

2.
13 m
6 m
8 m
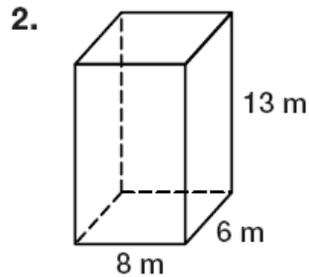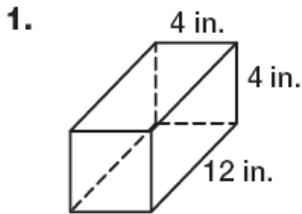
Find the surface area of each figure.

1.
3 cm
4 cm
12 cm

2.
4 ft
4 ft
4 ft
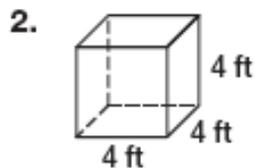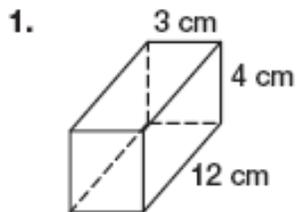
Web Links

Try these web sites for additional practice and interactive learning!

- Cool Math
  http://www.coolmath.com/
- Primary Games
  http://www.primarygames.com/math.php