Fast Facts

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

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

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

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

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.
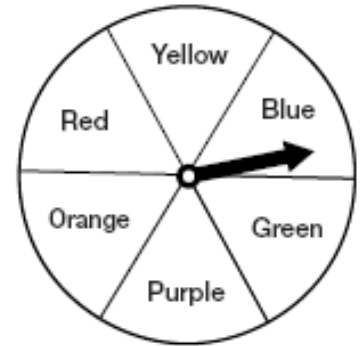
1. P(3 and blue)

   _____

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

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

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

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

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

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

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

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

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