

Dear Parents,

Here is what your child is learning in Grade 4, Unit 3 along with some specific ways you can help. Look for additional newsletters for upcoming units.

## PROBABILITY

Students need to:

- List all possible outcomes for a simple probability situation.
- Express the probability of an event with equally likely outcomes as a fraction.

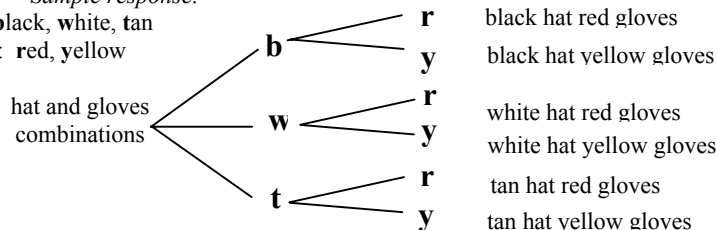
Examples:

1. Show all of the possible hat and gloves combinations that can be chosen from the following:

Sample response:

hats: black, white, tan

gloves: red, yellow



2. There are 27 gumballs in a box. Only one of the gumballs is red. Write a fraction that shows the probability of drawing a red gumball from the box.

Sample response:  $\frac{1}{27}$

## NUMBER RELATIONSHIPS AND COMPUTATION

Students need to:

- Compare and order fractions and mixed numbers.
- Compare decimals to the hundredths using numerals, pictures, and objects.
- Describe the relationship between fractions and decimals.
- Add and subtract fractional numbers with like denominators using models and pictures.
- Add and subtract decimals using models and pictures.
- Multiply fractions and whole numbers using models and pictures.
- Solve problems involving estimation with fractions and decimals.

Examples:

1. Order the fractions and mixed numbers below from least to greatest.

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

Sample response:

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

2. Write < or > or = on the line to make a true sentence.

0.69 \_\_\_\_\_ 0.7

1.0 \_\_\_\_\_ 0.99

$\frac{1}{2}$  \_\_\_\_\_ 0.5

Sample responses:

0.69 < 0.7

1.0 > 0.99

$\frac{1}{2} = 0.5$

3. Which of the following decimals is equivalent to  $\frac{3}{10}$ ?

A. 0.03

B. 0.3

C. 3.0

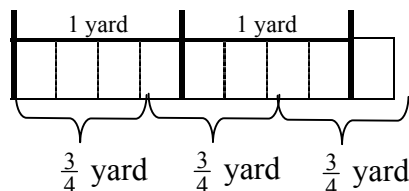
D. 3.10

Sample response: B

4. Maria needs  $\frac{3}{4}$  yard of ribbon for each package she is wrapping.

- Make a model to explain how much ribbon is needed for 3 packages.
- Write the amount of ribbon needed for 3 packages.

Sample response:  $\frac{9}{4}$  or  $2\frac{1}{4}$  yards are needed.



5. There are 7.6 grams of protein in a small container of yogurt.

- Estimate the number of grams of protein in 12 containers.
- Use words, pictures, or numbers to explain how you determined your estimate.

Sample responses:

a. Range for answers between 76-96 grams.

b. I rounded 7.6 to 8, and  $8 \times 12 = 96$ .

OR

I rounded 7.6 to 8 and 12 to 10, and  $10 \times 8 = 80$ .

## WAYS PARENTS CAN HELP

- Encourage your child to practice reading decimals found on product labels. For example: The meat in the package has four and five-tenths (4.5) grams of fat. The water bottle contains sixteen and nine-tenths (16.9) fluid ounces.
- Ask your child to estimate the total cost of several items at a grocery store.
- Provide your child with opportunities to measure five objects to the nearest  $\frac{1}{4}$  inch. Ask your child to arrange the objects in order from shortest to longest and record the measurements.
- Ask questions to encourage your child to think about how to compare fractions. For example, "Is the fraction greater or less than one-half? Is the fraction greater than one or less than one? How do you know?"

- Discuss equivalent fractions in a pizza, pie, or sheet cake with your child. For example, given a pizza with a total of 8 slices of equal size, discuss that one-half of the pizza is the same as four of the eight slices ( $\frac{1}{2} = \frac{4}{8}$ ). One-fourth of the pizza is the same as two of the eight slices ( $\frac{1}{4} = \frac{2}{8}$ ).



For additional activities, visit [www.ed.gov/pubs/parents/Math](http://www.ed.gov/pubs/parents/Math)