Name _____   Date _____

1. Multiply or divide. Draw a model to explain your thinking.

   a. $\frac{1}{2} \times 5$

   b. $\frac{1}{2} \times 6$

   c. $\frac{3}{4} \times 8$

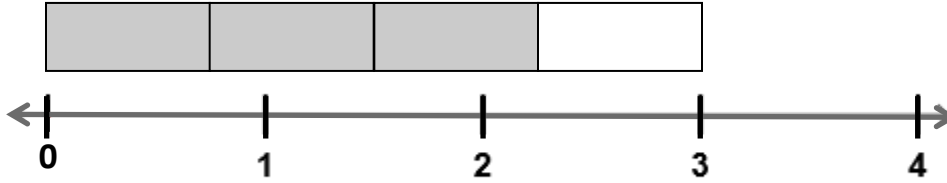   d. $\frac{2}{5} \times 15$

   e. $\frac{1}{3}$ of 3 feet = _____ inches

   f. $\frac{1}{6}$ of 2 yards = _____ feet

   g. $\left(3 + \frac{1}{2}\right) \times 12$

   h. $3\frac{2}{3} \times 12$

2. If the whole bar is 3 units long, what is the length of the shaded part of the bar? Write a multiplication equation for the diagram, and then solve.

3. Circle the expression(s) that are equal to $\frac{2}{5} \times 3$. Explain why the others are *not* equal using words, pictures, or numbers.

    a. $2 \times (3 \div 5)$

    b. $2 \div (5 \times 3)$

    c. $(2 \times 3) \div 5$
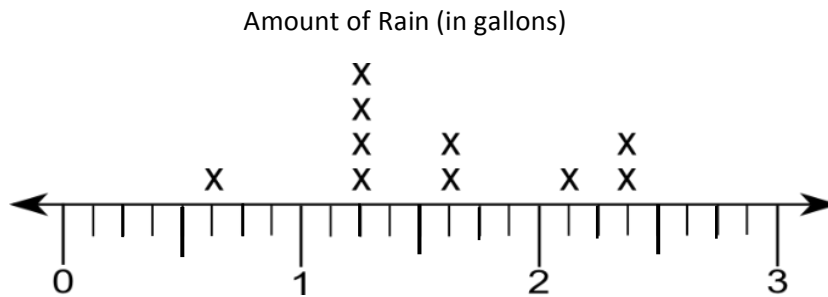
    d. $2 \times \frac{3}{5}$

4. Write the following as expressions.

    a. two-thirds the sum of 5 and 7.

    b. Three times the quotient of 3 and 5.

    c. One-third the difference between $\frac{2}{3}$ and $\frac{1}{2}$.

5. Mr. Wilson used 10 buckets to collect rainfall in various locations on his property. The following line plot shows the amount of rain collected in each bucket in gallons. Write an expression that includes multiplication to show how to find the total amount of water collected in gallons. Then, solve your expression.

Amount of Rain (in gallons)

6. Ms. Prescott uses the following recipe for crispy rice treats. She decides to make $\frac{1}{3}$ of the recipe.

>   3 cups melted butter
>   12 oz marshmallows
>   13 cups rice crispy cereal

a. How much of each ingredient will she need? Write an expression that includes multiplication. Solve by multiplying.

b. How many fluid ounces of butter will she use? (Use your measurement conversion chart, if you wish.)

c. When the crispy rice treats have cooled, Mrs. Prescott cuts them into 30 equal pieces. She gives two-fifths of the treats to her son and takes the rest to school. How many treats will Mrs. Williams take to school? Use any method to solve.