Name _____ Date _____

1. Fill in the blanks.

a. $\frac{1}{3} \times 1 = \frac{1}{3} \times \frac{3}{3} = \frac{3}{9}$

b. $\frac{2}{3} \times 1 = \frac{2}{3} \times \frac{7}{7} = \frac{14}{21}$

c. $\frac{5}{2} \times 1 = \frac{5}{2} \times \frac{5}{5} = \frac{25}{10}$

d. Compare the first factor to the value of the product.

The first factor is equal to the product because it was multiplied by 1 each time. Anything multiplied by 1 always equals itself.

2. Express each fraction as an equivalent decimal.

a. $\frac{3}{4} \times \frac{25}{25} = \frac{3 \times 25}{4 \times 25} = \frac{75}{100} = 0.75$

b. $\frac{1}{4} \times \frac{25}{25} = \frac{1 \times 25}{4 \times 25} = \frac{25}{100} = 0.25$

c. $\frac{2}{5} \times \frac{2}{2} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10} = 0.4$

d. $\frac{3}{5} \times \frac{2}{2} = \frac{6}{10} = 0.6$

e. $\frac{3}{20} \times \frac{5}{5} = \frac{15}{100} = 0.15$

f. $\frac{25}{20} \times \frac{5}{5} = \frac{125}{100} = 1.25$

g. $\frac{23}{25} \times \frac{4}{4} = \frac{92}{100} = 0.92$

h. $\frac{89}{50} \times \frac{2}{2} = \frac{178}{100} = 1.78$

i. $3\frac{11}{25} \times \frac{4}{4} = 3\frac{44}{100} = 3.44$

j. $5\frac{41}{50} \times \frac{2}{2} = 5\frac{82}{100} = 5.82$

3. $\frac{6}{8}$ is equivalent to $\frac{3}{4}$. How can you use this to help you write $\frac{6}{8}$ as a decimal? Show your thinking to solve.

$\frac{6}{8} = \frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$

It is much easier to multiply by 4 to get 100 than to multiply by 8 to get 100.

4. A number multiplied by a fraction is not always smaller than what you start with. Explain this, and give at least two examples to support your thinking.

$10 \times \frac{7}{5} = \frac{2}{\cancel{10}} \times \frac{7}{\cancel{5}_1} = 14$

$9 \times \frac{4}{3} = \frac{3}{\cancel{9}} \times \frac{4}{\cancel{3}_1} = 12$

If the fraction is greater than 1, then the number being multiplied will get larger.

5. Elise has $\frac{3}{4}$ dollar. She buys a stamp that costs 44 cents. Change both numbers into decimals, and tell how much money Elise has after paying for the stamp.

$\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$

44 cents = 0.44

$$\begin{array}{r} 0.75 \\ -0.44 \\ \hline 0.31 \end{array}$$

Elise will have 31 cents after paying for the stamp.