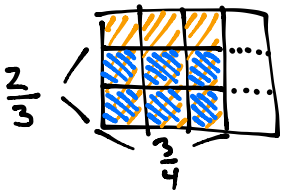
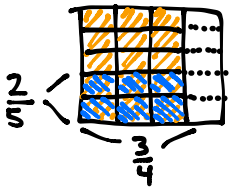
Name _____ Date _____

1. Solve. Draw a model to explain your thinking. Then write a multiplication sentence.

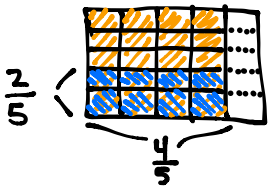
a. $\frac{2}{3}$ of $\frac{3}{4}$ $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$



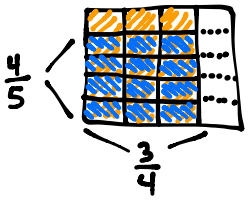
b. $\frac{2}{5}$ of $\frac{3}{4}$ $\frac{2}{5} \times \frac{3}{4} = \frac{6}{20} = \frac{3}{10}$



c. $\frac{2}{5}$ of $\frac{4}{5}$ $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$



d. $\frac{4}{5}$ of $\frac{3}{4}$ $\frac{4}{5} \times \frac{3}{4} = \frac{12}{20} = \frac{3}{5}$



2. Multiply. Draw a model if it helps you.

a. $\frac{5}{6} \times \frac{3}{10} = \frac{5 \times 3}{6 \times 10} = \frac{1 \times 1}{2 \times 2} = \frac{1}{4}$

b. $\frac{3}{4} \times \frac{4}{5} = \frac{3 \times 4}{4 \times 5} = \frac{3 \times 1}{1 \times 5} = \frac{3}{5}$

c. $\frac{5}{6} \times \frac{5}{8} = \frac{5 \times 5}{6 \times 8} = \frac{25}{48}$

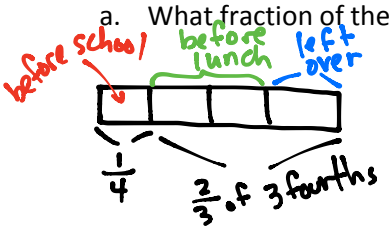
d. $\frac{3}{4} \times \frac{5}{12} = \frac{3 \times 5}{4 \times 12} = \frac{5}{16}$

e. $\frac{8}{9} \times \frac{3}{2} = \frac{8 \times 3}{9 \times 2} = \frac{4}{3} = 1\frac{1}{3}$

f. $\frac{3}{7} \times \frac{2}{9} = \frac{3 \times 2}{7 \times 9} = \frac{2}{21}$

3. Every morning, Halle goes to school with a 1 liter bottle of water. She drinks $\frac{1}{4}$ of the bottle before school starts and $\frac{2}{3}$ of the rest before lunch.

a. What fraction of the bottle does Halle drink ~~before lunch?~~ after school starts, but before lunch?



$\frac{2}{3}$ of $\frac{3}{4} = \frac{2}{4} = \frac{1}{2}$

Halle drinks $\frac{1}{2}$ of the bottle.

$\frac{2}{3}$ of $\frac{3}{4}$

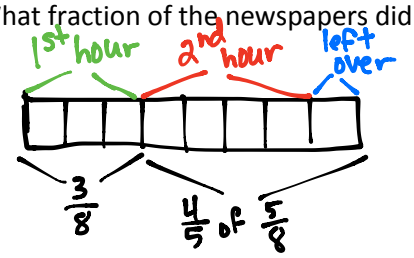
$= \frac{2}{3} \times \frac{3}{4} = \frac{2 \times 3}{3 \times 4} = \frac{1}{2}$

b. How many milliliters are left in the bottle at lunch?

$\frac{1}{4}$ of a liter is left over

$\frac{1}{4} \times 1000 = 250$ milliliters

4. Moussa delivered $\frac{3}{8}$ of the newspapers on his route in the first hour and $\frac{4}{5}$ of the rest in the second hour. What fraction of the newspapers did Moussa deliver in the second hour?



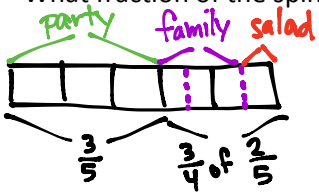
2nd hour: $\frac{4}{8} = \frac{1}{2}$

$\frac{4}{5}$ of $\frac{5}{8} = \frac{4}{5} \times \frac{5}{8}$

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

5. Rose bought some spinach. She used $\frac{3}{5}$ of the spinach on a pan of spinach pie for a party, and $\frac{3}{4}$ of the remaining spinach for a pan for her family. She used the rest of the spinach to make a salad.

a. What fraction of the spinach did she use to make the salad?

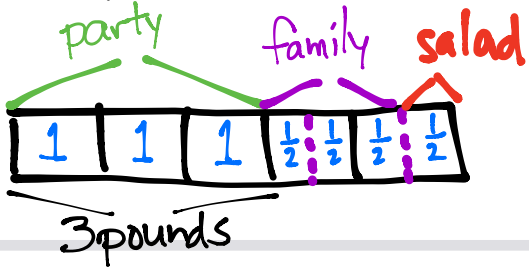


$\frac{3}{4}$ of $\frac{2}{5} = \frac{3}{4} \times \frac{2}{5}$

$= \frac{3 \times 2}{4 \times 5} = \frac{3}{10}$ for pan

$\frac{1}{10}$ is left for the salad.

b. If Rose used 3 pounds of spinach to make the pan of spinach pie for the party, how many pounds of spinach did Rose use to make the salad?



$\frac{3}{5}$ is 3 pounds, so each tenth is $\frac{1}{2}$ pound.

Rose used $\frac{1}{2}$ pound for the salad.