Name _____

Date _____

- 1. Draw and label a tape diagram to show the following are true.
 - a. 8 thirds = $4 \times (2 \text{ thirds}) = (4 \times 2)$ thirds



b. 15 eighths = $3 \times (5 \text{ eighths}) = (3 \times 5) \text{ eighths}$



2. Write the expression in unit form to solve. a. $10 \times \frac{2}{5} = \frac{20}{5}$ b. $3 \times 10 \times 2$ fifths = 20 fifths 3×5

b.
$$3 \times \frac{5}{6} = \frac{15}{6}$$

 $3 \times 5 \text{ sixths} = 15 \text{ sixths}$

c.
$$9 \times \frac{4}{9} = \frac{36}{9}$$

d. $7 \times \frac{3}{4} = \frac{21}{4}$
 $9 \times 4 \text{ ninths} = 36 \text{ ninths}$
 $7 \times 3 \text{ fourths} = 21 \text{ fourths}$



Lesson 35:

Represent the multiplication of *n* times a/b as $(n \times a)/b$ using the associative property and visual models.

3. Solve.
a.
$$6 \times \frac{3}{4} = \frac{6 \times 3}{4} = \frac{19}{4}$$

b. $7 \times \frac{5}{8} = \frac{7 \times 5}{8} = \frac{35}{8}$
c. $13 \times \frac{2}{3} = \frac{13 \times 2}{3} = \frac{26}{3}$
d. $18 \times \frac{2}{3} = \frac{18 \times 2}{3} = \frac{36}{3}$
e. $14 \times \frac{7}{10} = \frac{14 \times 7}{10} = \frac{98}{10}$
f. $7 \times \frac{14}{100} = \frac{7 \times 14}{100} = \frac{98}{100}$

4. Mrs. Smith bought some orange juice. Each member of her family drank $\frac{2}{3}$ cup for breakfast. There are five people in her family. How many cups of orange juice did they drink?

$$5 \times \frac{2}{3} = \frac{5 \times 2}{3} = \frac{10}{3}$$

The family drank $\frac{10}{3}$ cups of orange juice.



Lesson 35:

Represent the multiplication of *n* times a/b as $(n \times a)/b$ using the associative property and visual models.