Lesson 5-3 : Equivalent ratios

SWBAT: Find and use equivalent ratios and rates to solve real world problems

Equivalent Ratios (proportions):

- Since ratios are fractions, it is the same as finding equivalent fractions.
- You just _____ your original ratio by the same number to get your new ratio!

Ex: Find equivalent ratios for $\frac{3}{5} : \frac{6}{10}$,

Word problems with the total given:

- 3 methods to use to help solve. You can pick which ever method works best for you.

Ex: The ratio of round to square tables at a party is 6 : 1. The total number of tables is 35. How many round tables are there?

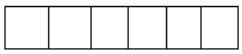
a. $\frac{Round}{Square} = \frac{6}{1} =$

Total = 7 = 35

b. $\frac{Total}{Round} = \frac{7}{6} = \frac{35}{x}$

c. Tape Diagram:

- First, draw the tape diagram for the problem

Round 

Square 

- Now count them and think. If there are 7 total parts and 35 total tables, how many tables go into each box?
- Now put that number into each box and count how many tables are in the round section.

The ratio of nickels to dimes in a jar is 5 to 3. The total number of coins in the jar is 40. How many dimes are there?

A painter mixed 56 quarts of blue and yellow paint using a ratio of 3 to 11. How many quarts of blue paint were used?

Cross multiply-

- Multiply the _____ and put them on opposite sides of an _____ sign
- $\frac{4}{5} = \frac{x}{6}$ $\frac{2}{3} = \frac{6}{x}$

a. A baker can make 26 rolls in 8 hours. How many rolls can he make in 3 hours?

b. A mechanic can fix 5 cars in 2 hours. How many hours will it take him to fix 16 cars?