

Lesson 5-1 : Ratios (continued)

SWBAT: Write and find ratios to compare real world quantities.

Proportions:

When two ratios are _____

- Also called _____
- Just like equivalent fractions you have to see what to multiply or divide the ratio by to get the other ratio

Ex: $\frac{4}{5} = \frac{20}{25}$ - This is a proportion because if you multiply the first ratio by 5 you would get the 2nd ratio.

a. $\frac{2}{3} = \frac{\quad}{27}$ b. $\frac{1}{2} = \frac{\quad}{10}$ c. $\frac{6}{11} = \frac{24}{\quad}$ d. $\frac{5}{13} = \frac{\quad}{91}$

You can also write proportions using the : symbol

Ex:

A recipe calls for the ratio of sugar to flour to be 5:1. If we used 35 ounces of sugar, how much flour do we need?

- | | |
|---|----------------|
| - First, set up the ratio | Sugar to Flour |
| - Now, put in the numbers | 5 : 1 |
| - Now put in any new numbers | 35 : |
| - How do we get from 5 to 35? | |
| - Multiply by that much for the other value | 35 : 7 |

I have 24 red pens, if the ratio of red to blue pens is 8 : 3, how many total pens do I have?

- | | |
|--------------------------------------|-------------|
| - Set up the ratio with words first | Red to Blue |
| - Put in numbers | 8 : 3 |
| - Put in new numbers | 24 : |
| - Find the missing value | 24 : |
| - Now find the total number of pens! | |

Challenge: Solve for the variable in the proportions:

a. $\frac{6}{15} = \frac{n}{25}$ b. $\frac{2}{x} = \frac{3}{9}$