

5.3 Writing Proportions p.2 12/10

Ex. 1: How can we use proportions to find an unknown amount?

Ex. 1 Writing a Proportion

Ingredients	Original Recipe	New Recipe	
Black Beans	1.5c	6c	BB
Tomatoes	1	?	T

1st Way

original = New

$$\frac{1.5c}{1T} = \frac{6c}{?T}$$

$$1(6) = 1.5(T)$$

$$\frac{6}{1.5} = \frac{1.5T}{1.5}$$

$$T = 4 \text{ Tomatoes}$$

2nd Way

$$\frac{\text{original}}{\text{New}} = \frac{1.5}{6} = \frac{1}{T}$$

BB $\div 1.5$

$T = 4 \text{ Tomatoes}$

$\div 1.5$

$$1.5T = 6(1)$$

↑ same #'s multiplied

To Tell that proportions are the same...
CHECK THEIR X-PRODUCTS!

Ex. 2 More Black Bean Soup

Ingredients	original	New	
Black Beans	1.5c	6c	BB
Water	2c	y	W

original = New

$$\frac{1.5}{2} = \frac{6}{y}$$

$$2(6) = 1.5y$$

$$\frac{12}{1.5} = \frac{1.5y}{1.5}$$

$$y = 8$$