

Name _____

Jack uses 1.5 cups of water for every 2 cups of raspberries to make a raspberry syrup. What is an equation that relates the amount of water to the amount of raspberries in the syrup?

Step 1 Are the quantities proportional?

Cups of Raspberries (x)	2	4	6
Cups of Water (y)	1.5	3	4.5
$\frac{y}{x}$	$\frac{1.5}{2} = 0.75$	$\frac{3}{4} = 0.75$	$\frac{4.5}{6} = 0.75$

The quantities are proportional. The constant of proportionality is 0.75.

Step 2 Write an equation in the form $y = kx$, where k is the constant of proportionality, to relate proportional quantities x and y .

Use $k = 0.75$. $y = kx$
 $y = 0.75x$

The equation $y = 0.75x$ relates the amount of water to the amount of raspberries.

1. Complete the table to determine whether the quantities x and y are proportional.

x	2	5	7
y	8	20	28
$\frac{y}{x}$			

2. What is the constant of proportionality that relates the quantities x and y ? $\frac{y}{x} = \boxed{}$

3. Write an equation that relates the quantities. $y = kx$

$$y = \boxed{} x$$

On the Back!

4. The table shows how the quantities x and y are related. Are the quantities proportional? Write an equation to represent the relationship.

	LIVEWORKSHEETS
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x	5	7	9
y	25	35	45