Warm Up Questions

> **Fruit Juice Recipe**
> **2 cups pineapple juice**
> **3 cups cranberry juice**

#1   You need to make only 9 cups of juice for a taste test. How much of each ingredient will you need?

Fruit Juice Recipe
2 cups pineapple juice
3 cups cranberry juice

You need to make only 9 cups of juice for a taste test.
How much of each ingredient will you need?

Batch Total

# of pineapple = 2
# of cranberry = 3

Total # = 5

Fruit Juice Recipe
2 cups pineapple juice
3 cups cranberry juice

You need to make only 9 cups of juice for a taste test.
How much of each ingredient will you need?

Total Ratio

Batch Total

Let x = pineapple

# of pineapple   =   2
# of cranberry   =   3

# of pineapple
Total

Total # = 5

$$\frac{2}{5} = \frac{x}{9}$$

$$5x = 18$$

$$x = 3.6$$

Fruit Juice Recipe
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You need to make only 9 cups of juice for a taste test. How much of each ingredient will you need?

Batch Total

$$\frac{\text{# of pineapple}}{\text{# of cranberry}} = \frac{2}{3}$$

Total # = 5

Total Ratio

Let x = pineapple

$$\frac{\text{# of pineapple}}{\text{Total}}$$

$$\frac{2}{5} = \frac{x}{9}$$

5x = 18

x = 3.6

3.6 cups of pineapple

$$9 - 3.6 = 5.4$$

5.4 cups of cranberry

#2   **A dirt bike with a 2-stroke engine requires 15 L of gas to be mixed with 1.5 L of oil. If the dirt bike's gas tank holds 20 L of gas. How much gas and oil will be needed to fill the tank?**

#2   **A dirt bike with a 2-stroke engine requires 15 L of gas to be mixed with 1.5 L of oil. If the dirt bike's gas tank holds 20 L of gas. How much gas and oil will be needed to fill the tank?**

Batch Total

$$\frac{\text{Liters of gas}\ \ =\ 15}{\text{Liters of oil}\ \ \ =\ \ 1.5}$$

Total # = 16.5

Total Ratio

Let x = gas

$$\frac{\text{liters of gas}}{\text{Total}}$$

$$\frac{15}{16.5} = \frac{x}{20}$$

$$\frac{16.5x}{16.5} = \frac{300}{16.5}$$

$$x = 18.2$$

Liters of gas

Oil Total

$$\frac{\text{Oil} = 20 - 18.2}{= \ 1.8}$$

1.8 Litres of oil