

1. Organize the prices below from lowest to highest unit rate.

careful!! →

355 mL of pop	\$0.44
2 L of pop	\$1.39
1 L of pop	\$0.64



2. Jennifer is making a punch for her mother's birthday. The recipe calls for 2 cups of ginger ale, 4 cups of Sprite and, 5 cups of lemonade. If Jennifer needs to fill a punch bowl that holds 25 cups, how much of each will she need?



3. Tanya is a nurse. she needs to measure and administer the correct dose of medicine to her patients. 150 mg of medicine must be dissolved into 275 mL of water. If the patient requires a dose of 500 mg of medicine, how much water is needed? Round to the nearest millilitre.



1. Organize the prices below from lowest to highest unit rate.

355 mL of pop	\$0.44
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→ Convert 355 ml to litres
 $355 / 1000 = 0.355 \text{ L}$

<u>\$0.44</u>	<u>\$1.39</u>	<u>\$0.64</u>
0.355L	2L	1L
= \$1.24/L	= \$0.70/L	= \$0.64/L

1L \$0.64 → = \$0.64/L

2L \$1.39 → = \$0.70/L

355ml \$0.44 → = \$1.24/L

2. Jennifer is making a punch for her mother's birthday. The recipe calls for 2 cups of ginger ale, 4 cups of Sprite and, 5 cups of lemonade. If Jennifer needs to fill a punch bowl that holds 25 cups, how much of each will she need?



<u>Batch Total</u>	<u>Total Ratio</u>	<u>Total Ratio</u>	<u>Total Ratio</u>
# of ginger ale = <u>2</u>	Let x = ginger ale	Let y = Sprite	
# of Sprite = <u>4</u>	$\frac{\text{\# of ginger ale}}{\text{Total}}$	$\frac{\text{\# of Sprite}}{\text{Total}}$	
# of lemonade = <u>5</u>			
Total # = 11	$\frac{2}{11} = \frac{x}{25}$	$\frac{4}{11} = \frac{y}{25}$	
	$\frac{11x}{11} = \frac{50}{11}$	$\frac{11y}{11} = \frac{100}{11}$	
	x = 4.5 cups of ginger ale	y = 9.1 cups of Sprite	

Total Lemonade

25 - 4.5 - 9.1 = 11.4

**11.4 Cups of
Lemonade**

3. Tanya is a nurse. she needs to measure and administer the correct dose of medicine to her patients. 150 mg of medicine must be dissolved into 275 mL of water. If the patient requires a dose of 500 mg of medicine, how much water is needed? Round to the nearest millilitre.



Let $x = \text{Water (mL)}$

Medicine (mg)
Water (mL)

$$\frac{150}{275} = \frac{500}{x}$$

$$\rightarrow \frac{150x}{150} = \frac{137500}{150}$$

$$\rightarrow x = 917 \text{ millilitres of water is needed}$$

Homework

① ginger ale = 8
grenadine = 1
Total = 9

Let x = ginger ale

$\frac{\text{ginger ale}}{\text{total}}$

$$\frac{8}{9} = \frac{x}{12}$$

$$9x = 96$$

$x = 10.7$ ounces of
ginger ale.

Amount of
grenadine:

$$12 - 10.7 = 1.3$$

1.3 ounces of
grenadine.

$$\textcircled{a} \text{ Total weight} = 24\text{g}$$

$$\text{cost} = \$1200$$

a) Let x = cost of bracelet

$$\frac{\text{Cost}}{\text{Total Weight}}$$

$$\frac{1200}{24} = \frac{x}{10}$$

$$\frac{24x}{24} = \frac{12000}{24}$$

$$x = \$50 \text{ for the } 10\text{g bracelet}$$

$$\text{b) 'gold} = 18\text{g}$$

$$\text{metal} = 6\text{g}$$

$$\text{Total} = 24\text{g}$$

Let x = gold

$$\frac{\text{gold}}{\text{total}}$$

$$\frac{18}{24} = \frac{x}{10}$$

$$\frac{24x}{24} = \frac{180}{24}$$

$$x = 7.5\text{g of gold}$$

Amount of metal:

$$10 - 7.5 = 2.5\text{g}$$

$$2.5\text{g of metal alloy}$$