



Unit 5

Ratio and Proportion

Presentation 1

Presentation 2

Presentation 3

Presentation 4

Presentation 5

[Return to Start](#)

[Simplifying Ratios](#)

[Simple Ratios](#)

[Proportion and Ratios](#)

[Map Ratios](#)

[Proportional Division](#)



Unit 5

Simplifying Ratios

You can simplify ratios in the same way as fractions.

Example Divide both sides by a common factor

$$4 : 8$$

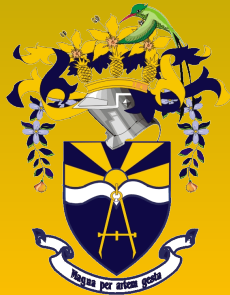
$$4 : 8 = 1 : ?$$

$$= 1 : 2$$

Example Simplify $6 : 21$

$$6 : 21 = ? : ?$$

$$= 2 : 7$$





You have finished viewing the presentation

Simplifying Ratios
Please choose an option

[Presentation 2](#)

[Presentation 3](#)

[Presentation 4](#)

[Presentation 5](#)

[Return to Start](#)

[Simple Ratios](#)

[Proportion and Ratios](#)

[Map Ratios](#)

[Proportional Division](#)



Unit 5

Simple Ratios

A class consists of 12 girls and 20 boys.
What is the ratio of (a) girls to boys and (b) boys to girls? Give the answer in its simplest form.

$$\begin{aligned} \text{(a) Girls to boys} &= 12 : 20 \\ &= 3 : 5 \end{aligned}$$

$$\begin{aligned} \text{(b) Boys to girls} &= 20 : 12 \\ &= 5 : 3 \end{aligned}$$





You have finished viewing the presentation

Simple Ratios
Please choose an option

Presentation 1

Presentation 3

Presentation 4

Presentation 5

[Return to Start](#)

[Simplifying Ratios](#)

[Proportion and Ratios](#)

[Map Ratios](#)

[Proportional Division](#)



Unit 5

Proportion and Ratio

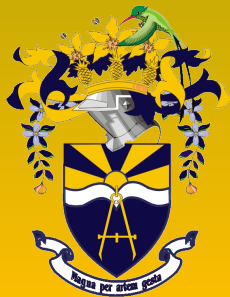
To make a fruit drink, you mix orange juice and pineapple juice in the ratio 5 : 8.

(a) How much pineapple juice would be mixed with 500cm^3 of orange juice?

$$\begin{aligned}\text{Ratio of orange : pineapple} &= 5 : 8 \\ &= 1 : \frac{8}{5} \\ &= 1 : 1.6\end{aligned}$$

For every 1cm^3 of orange juice you need

1.6 cm^3 of pineapple



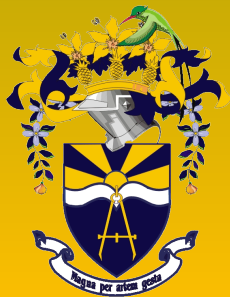
To make a fruit drink, you mix orange juice and pineapple juice in the ratio 5 : 8.

(a) How much pineapple juice would be mixed with 500cm^3 of orange juice?

$$\begin{aligned}\text{Ratio of orange : pineapple} &= 5 : 8 \\ &= 1 : ? \\ &= 1 : 1.6\end{aligned}$$

For every 500cm^3 of orange, you need

$$500 \times 1.6 = \boxed{800} \text{ cm}^3 \text{ of pineapple}$$



To make a fruit drink, you mix orange juice and pineapple juice in the ratio 5 : 8.

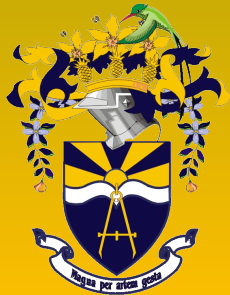
(b) How much orange juice would be needed with 500cm^3 of pineapple juice?

Ratio of pineapple: orange =

= 1 :

For every 1cm^3 of pineapple, you need

cm^3 of orange



To make a fruit drink, you mix orange juice and pineapple juice in the ratio 5 : 8.

(b) How much orange juice would be needed with 500cm^3 of pineapple juice?

$$\begin{aligned}\text{Ratio of pineapple: orange} &= 8 : 5 \\ &= 1 : 0.625\end{aligned}$$

For every 500cm^3 of pineapple, you need

$$500 \times 0.625 = \boxed{312.5} \text{ cm}^3 \text{ of orange}$$





You have finished viewing the presentation

Proportion and Ratios
Please choose an option

Presentation 1

Presentation 2

Presentation 4

Presentation 5

[Return to Start](#)

[Simplifying Ratios](#)

[Simple Ratios](#)

[Map Ratios](#)

[Proportional Division](#)



Unit 5

Map Ratios

The Caribbean



If the map was drawn to the scale
1:10 000 000, calculate the actual distance,
in km, for a map distance of 20cm.

$$\begin{aligned}20\text{cm on map} &= ? \times 10\,000\,000\text{ cm} \\ &= 200\,000\,000\text{ cm} \\ &= 200\,000\,000 \div ? \text{ m} \\ &= 2\,000\,000\text{m} \\ &= 2\,000\,000 \div ? \text{ km} \\ &= 2\,000\text{km}\end{aligned}$$

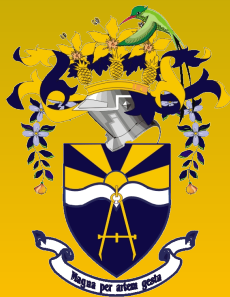


The actual distance between Kingston and St Kitts is about 1450km. What is the map distance.

$$1450 \text{ km} = \boxed{\text{?}} \text{ cm}$$

$$= 145\,000\,000 \div \boxed{\text{?}}$$

$$= 14.5 \text{ cm}$$





You have finished viewing the presentation

Map Ratios
Please choose an option

Presentation 1

Presentation 2

Presentation 3

Presentation 5

Return to Start

Simplifying Ratios

Simple Ratios

Proportion and Ratios

Proportional Division



Unit 5

Proportional Division

Problem Divide \$70 between Marlon and Jenni in the ratio 9:5

Solution $9 + 5 = \boxed{?}$

Divide \$70 into 14 equal parts: $\$70 \div 14 = \boxed{?}$

Marlon's share = $\boxed{?} \times \$5 = \boxed{?}$

Jenni's share = $\boxed{?} \times \$5 = \boxed{?}$

Check $45 + 25 = \boxed{?}$

$45 : 25 = \boxed{?} : \boxed{?}$



Problem

Misha, Sharon and Lloyd divide up 90 sweets in the ratio 2:7:9. How many sweets do they each get?

Solution

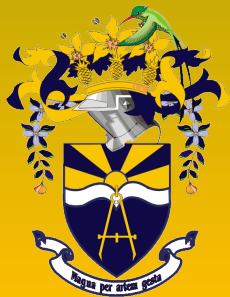
$$2 + 7 + 9 = \boxed{?}$$

Divide \$90 into 80 equal parts: $90 \div 18 = \boxed{?}$

Misha: $\boxed{?} \times 2 = \boxed{?}$ sweets

Sharon: $\boxed{?} \times 7 = \boxed{?}$ sweets

Lloyd: $\boxed{?} \times 9 = \boxed{?}$ sweets





You have finished viewing the presentation

Proportional Division
Please choose an option

Presentation 1

Return to Start

Simplifying Ratios

Presentation 2

Simple Ratios

Presentation 3

Proportion and Ratios

Presentation 4

Map Ratios