

Interpret recipes to make related amounts

1. A recipe for a refreshing drink requires 1 teaspoon of crushed ginger for every 3 litres of water. How many teaspoons of ginger would be required to make a recipe with 15 litres of water?

$$15 \text{ L} = 3 \text{ L} + 3 \text{ L} + 3 \text{ L} + 3 \text{ L} + 3 \text{ L} \quad (15 \div 3 = 5)$$

Each 3 litres requires a teaspoon of ginger making a total of 5 teaspoons.

2. A particular lawn-mower fuel contains equal amounts of oil and petrol. A container holds 5 L of fuel. How much oil does it contain?

Oil	Petrol	Total = 5 L
$\frac{1}{2}$	$\frac{1}{2}$	

Half of the fuel is oil. $5 \div 2 = 2.5$. The container holds 2.5 L of oil.

3. A gardener mixes 50 mL of rose fertilizer to every litre of water. How much water would be needed to apply 1 L of rose fertilizer?

We need to work out how many lots of 50 mL there are in 1 L.

$$1 \text{ L} = 1000 \text{ mL and } 1000 \div 50 = 100 \div 5 = 20$$

There are 20 lots of 50 mL in a litre so a total of 20 litres of water will be needed.

4. A soap-opera writer follows a rule that there must be at least one funny bit every 10 minutes. How many funny bits will there be in $2\frac{1}{2}$ hours of the show?

We need to work out how many times 10 minutes goes into $2\frac{1}{2}$ hours.

$$2\frac{1}{2} \text{ hours in minutes is } 60 \text{ min} + 60 \text{ min} + 30 \text{ min} = 150 \text{ min.}$$

$$150 \div 10 = 15. \text{ There will be 15 funny bits.}$$

5. A bakery uses a cake mixture in which the dry ingredients consist of one cup of sugar to every two cups of flour. A large cake was ordered that used 24 cups of dry ingredients. How many cups of flour were used?

$$\text{One third of } 24 = 24 \div 3 = 8.$$

$$\text{Two thirds of } 24 = 8 + 8 = 16$$

16 cups of flour were used.

Sugar	Flour	Flour
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$