

# Direct proportion

Objective: "To be able to use the unitary method solve proportion problems"

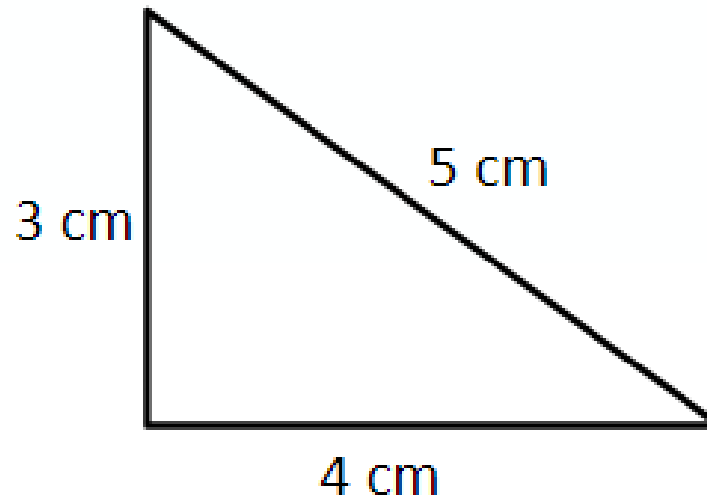
6 Work out  $28 \times 100$

7 **Simplify**  $2a + 3a + a$

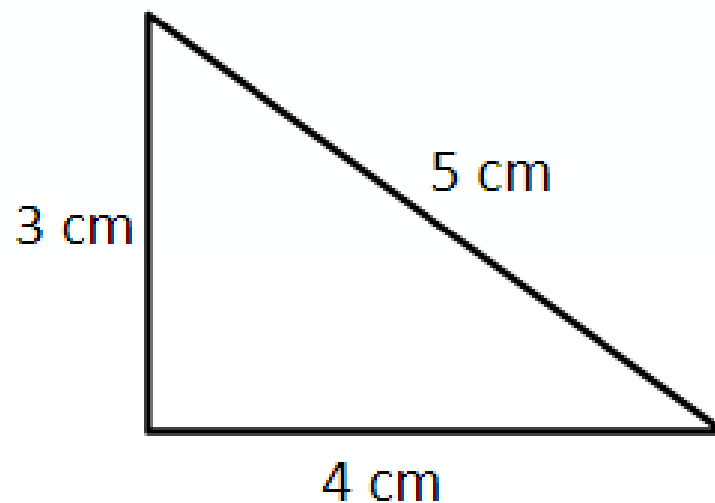
8 **Solve**  $x + 5 = 11$

9 Find the **median** value : 2, 5, 7, 11, 12, 14, 14

10 Work out the **perimeter** of



- 6 Work out  $28 \times 100$  **2800**
- 7 **Simplify**  $2a + 3a + a$  **6a**
- 8 **Solve**  $x + 5 = 11$   **$x = 6$**
- 9 Find the **median** value : 2, 5, 7, 11, 12, 14, 14 **11**
- 10 Work out the **perimeter** of **12 cm**



Example

# Shortbread

Serves 8

Butter	150g
Caster Sugar	75g
Plain Flour	175g
Cornflour	50g

**How much of each  
ingredient do you  
Need to serve 16 ?**

Answer

Because the servings have doubled  
From 8 to 16 we must times all of the  
ingredients by 2

$$150 \times 2 = 300\text{g butter}$$

$$75 \times 2 = 150 \text{ g caster sugar}$$

$$175 \times 2 = 350\text{g plain flour}$$

$$50 \times 2 = 100\text{g Corn flour}$$

4. Richard wants to make Shortbread for 3 people.  
He has this recipe.



## Shortbread

Serves 4

Butter	80g
Caster Sugar	60g
Plain Flour	100g
Cornflour	40g

How much of each ingredient will Richard need for 3 people?

Answer

First find how much ingredients we need for one serving we do this by dividing Each amount by how many servings example

80 divide by 4 = 20g butter

We then times this by how many serving we need (3)

$20 \times 3 = 60$ g of butter for 3 servings

Try this one

Shown below is a recipe for Stuffed Turkey.

## Stuffed Turkey

Serves 4

Turkey	500g
Red Onion	1
Garlic Cloves	2
Chestnut Mushrooms	150g
Spinach	140g
Chicken Stock	300ml

Mary wants to make Stuffed Turkey for 10 people.

How much of each ingredient is needed?

Include units.

[Useful website Corbett maths video 256](#)

# Answers

	<b>4 servings</b>	<b>10 servings</b>
Turkey	500g	1250g
Red Onion	1	2.5g
Garlic Cloves	2	5
Chestnut Mushrooms	150g	375g
Spinach	140g	350g
Chicken Stock	300ml	750g

## Task

Complete the questions on the worksheet.  
Once you have finished check your answers.

# You do: Answers

## Question 1:

- (a) 400g flour, 60g caster sugar, 100g butter, 280ml milk. 2 eggs
- (b) 100g flour, 15g caster sugar, 25g butter, 70ml milk. 1/2 egg
- (c) 600g flour, 90g caster sugar, 150g butter, 420ml milk. 3 eggs
- (d) 1kg flour, 150g caster sugar, 250g butter, 700ml milk. 5 eggs
- (e) 2kg flour, 300g caster sugar, 500g butter, 1.4 litres milk. 10 eggs
- (f) 50g flour, 7.5g caster sugar, 12.5g butter, 35ml milk. 1/4 egg

## Question 2:

- (a) 600ml cream, 640ml milk, 240g caster sugar, 2 vanilla pods, 8 egg yolks
- (b) 150ml cream, 160ml milk, 60g caster sugar, 1/2 vanilla pod, 2 egg yolks
- (c) 75ml cream, 80ml milk, 30g caster sugar, 1/4 vanilla pod, 1 egg yolk
- (d) 225ml cream, 240ml milk, 90g caster sugar, 3/4 vanilla pod, 3 egg yolks
- (e) 450ml cream, 480ml milk, 180g caster sugar, 1.5 vanilla pods, 6 egg yolks
- (f) 750ml cream, 800ml milk, 300ml caster sugar, 2.5 vanilla pods, 10 egg yolks



# You do: Answers continued

## Question 3:

- (a) 1.5kg cod, 1.2kg haddock, 1.8 litres milk, 360g butter, 120g flour, 3kg potatoes
- (b) 100g cod, 80g haddock, 120ml milk, 24g butter, 8g flour, 200g potatoes
- (c) 200g cod, 160g haddock, 240ml milk, 48g butter, 16g flour, 400g potatoes
- (d) 400g cod, 320g haddock, 480ml milk, 96g butter, 32g flour, 800g potatoes
- (e) 800g cod, 640g haddock, 960ml milk, 192g butter, 64g flour, 1.6kg potatoes
- (f) 1.1kg cod, 880g haddock, 1320ml milk, 264g butter, 88g flour, 2.2kg potatoes

## Apply:

Q1(a): 360g flour, 45g caster sugar, 150ml milk, 3/4 egg, 37.5g butter, 75g currants

Q1(b): 30 hot cross buns

Q2(a): 3:2

Q2(b): 200g