

Extension

GD 1 Jessica has a bag with 20 sweets in and Jon has a bag with 30 sweets in. Jessica eats 25% of her sweets. Jon eats 60% of his sweets.

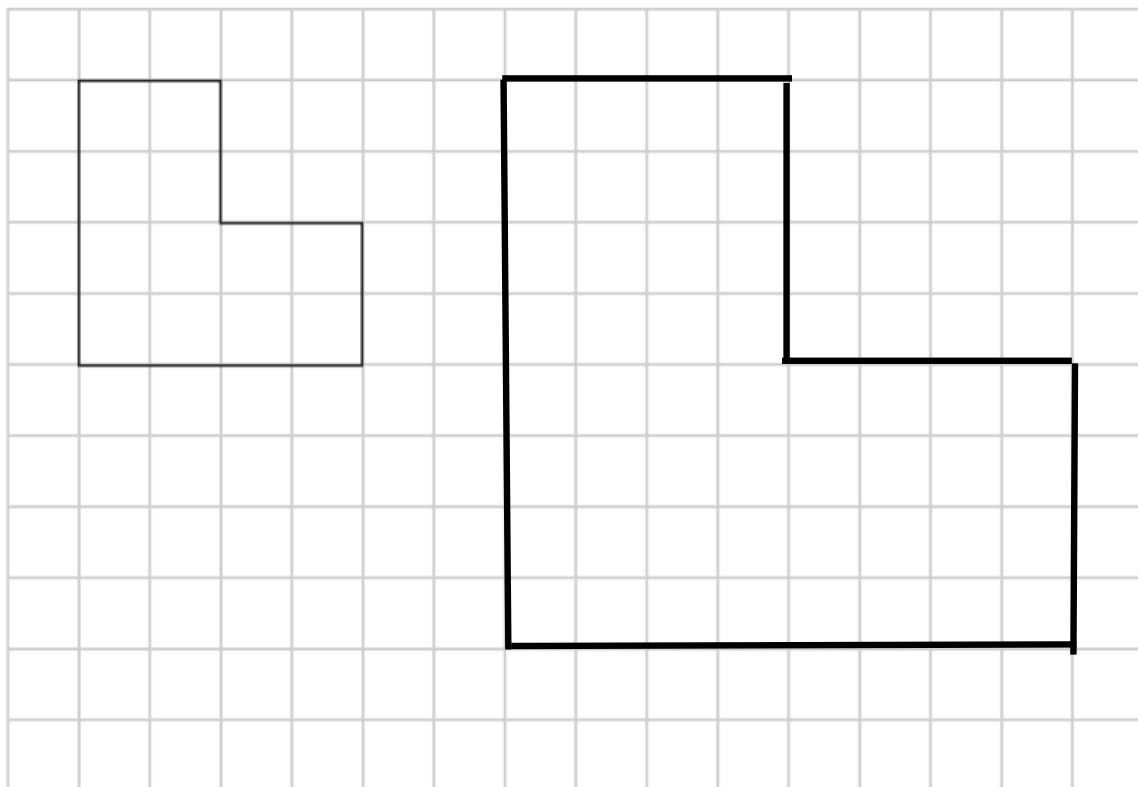
Who has the most sweets left?

Jessica has 20 and eats 25%, which is 5. She has 15 left.

Jon has 30 and eats 60%, which is 18. He has 12 left.

Jessica has the most left.

GD 2 Enlarge this shape by a scale factor of 2.



GD 3 Whitney lays tiles in the following pattern



If she has 16 red tiles and 20 yellow tiles remaining, can she continue her pattern without there being any tiles left over?

Explain why.

No. 16:20 is not the same ratio as 2:3.

If she had 16 red tiles, she would need 24 yellow tiles.

GD 4

There are some red and green cubes in a bag. $\frac{2}{5}$ of the cubes are red.

True or False?

- For every 2 red cubes there are 5 green cubes. ✗
- For every 2 red cubes there are 3 green cubes. ✓
- For every 3 green cubes there are 2 red cubes. ✓
- For every 3 green cubes there are 5 red cubes. ✗

Explain your answers.

If $\frac{2}{5}$ are red, that means 2 are red and the other 3 are green

GD 5

Annie is making some necklaces to sell. For every one pink bead, she uses three purple beads.



Each necklace has 32 beads in total.

The cost of the string is £2.80

The cost of a pink bead is 72p.

The cost of a purple bead is 65p.

How much does it cost to make one necklace?

Pink : Purple = Total

1 : 3 = 4 (need to x8 to get total of 32)

8 : 24 = 32

8 x 72p = 576p (£5.76)

24 x 65p = 1560p (£15.60)

£2.80 + £5.76 + £15.60 = £24.16

GD 6



How much of each ingredient is needed to make soup for:

- 3 people
- 9 people
- 1 person

What else could you work out?

Recipe for 6 people

- 1 onion
- 60 g butter
- 180 g lentils
- 1.2 litres stock
- 480 ml tomato juice

Onion : Butter : Lentils : Stock : Tomato juice = People

1 : 60g : 180g : 1.2l : 480ml = 6 people

$\frac{1}{2}$: 30g : 90g : 0.6l : 240ml = 3 people

$1\frac{1}{2}$: 90g : 270g : 1.8l : 720ml = 9 people

$\frac{1}{6}$: 10g : 30g : 0.2l : 80ml = 1 person

Remember, it is usually easiest to refer back to the original ratio that you are given and multiply or divide from that example.

GD 7

This recipe makes 10 flapjacks.

Flapjacks

120 g butter
100 g brown sugar
4 tablespoons golden syrup
250 g oats
40 g sultanas

Amir has 180 g butter.

What is the largest number of flapjacks he can make?

How much of the other ingredients will he need?

120g butter = 10 flapjacks so

12g butter = 1 flapjack

$180g \div 12 = 15$

He can make 15 flapjacks

For the ratio, we need to multiply by $1\frac{1}{2}$

Butter : Sugar : Syrup : Oats : Sultanas = Flapjacks

120g : 100g : 4 tbsp : 250g : 40g = 10

180g : 150g : 6 tbsp : 375g : 60g = 15