

I can solve problems involving ratio and proportion.

Example

The ratio of white beads to black is 3:2.

There are 40 beads altogether. How many are white?

Answer 24 white beads

Method $3 + 2 = 5$

$40 \div 5 = 8$

$3 \times 8 = 24$

A

1 A necklace is made using this pattern of beads. How many red beads are there if there are:

- 35 beads altogether
- 35 yellow beads?

2 One can weighs 250 g. How many cans weigh 2 kg?

3 40 people are playing bowls. There are three people over 65 to every two people under 65. How many of the 40 bowlers are over 65?

4 Pink paint is made by mixing four times as much white paint as red. How much white paint is needed to make one litre of pink paint?

5 Class 5 has four boys to every three girls. There are 12 girls. How many boys are there?

6 A map has a scale of 1 cm to 2 km. On the map a road is 12 cm long. How long is the road?

B

1 Three in eight of the 240 cars produced in a factory are white. How many cars are not white?

2 The ratio of tents to caravans at a camp site is 3:4. There are 24 tents. How many caravans are there?

3 Orange paint is made by mixing yellow and red in a ratio of 5:3. How much yellow paint is needed to make two litres of orange?

4 Beef costs £8.00 for one kilogram. How much will 350 g cost?

5 A baker mixes brown flour and white flour in a ratio of 3:2. How much of each is needed for 4 kg of the mixed flour?

6 A map has a scale of 1 cm to 4 km. Two villages are 24 km apart. How far apart are they on the map?

C

1 A necklace is made using this pattern of beads. How many red beads are there if there are:

- 30 green beads
- 10 yellow beads
- 40 beads altogether?

2 In one year the ratio of sunny days to cloudy days was 2:3. How many days were sunny?

3 Four in nine of the 360 dresses in a shop are sold. How many are left?

4 Cheese costs £6.40 per kilogram. How much can be bought for £1.60?

5 There are 180 people in a cinema. The ratio of children to adults is 7:5. How many children are in the audience?

6 A map has a scale of 1:100 000. What distance is shown by 5 cm on the map?