

Dividing Quantities into Proportional Parts

Two speeds are in the ratio 12 : 5.
If the first speed is 8 km/h, what is the second speed?

Speed		
	First	Second
Ratio	12	5
Actual	8	x

$$12x = 8(5) = 40$$

$$x = 40 \div 12 = 3 \frac{1}{3} \text{ km/h}$$

Ratio Questions

1. The ratio of the amount of money in David's pocket to that in Indira's pocket is 3 : 5. Indira has 40 cents. How much has David got?

David has _____ cents

2. Two lengths are in the ratio 3 : 7. The second length is 42 cm. Find the first length.

The first length is _____ cm

3. Two lengths are in the ratio 7 : 3. The second length is 42 cm. Find the first length.

The first length is _____ cm

4. In a rectangle, the ratio of length to width is 9 : 4. The length is 24 cm. Find the width.

The width is _____ cm

5. The ratio of the perimeter of a triangle to its shortest side is 10 : 3. The perimeter is 35 cm. What is the length of the shortest side?

The length of the shortest side is _____ cm

6. A length, originally 6 cm, is increased so that the ratio of the new length to the old length is 9 : 2. What is the new length?

The new length is _____ cm

7. A class is making a model of the school building and the ratio of the lengths of the model to the lengths of the actual building is 1 : 20. The gym is 6 m high. How high, in centimetres, should the model of the gym be?

The height of the model is _____ cm

8. The ratio of lengths of a model boat to those of the actual boat is 3 : 50. Find the length of the actual boat if the model is 72 cm long.

The length of the actual boat is _____ cm