

Proportion & Ratio (Calculator Allowed)

Show all Working Out

1. Carpet is priced relative to its area.

A rectangular carpet measuring 5m by 4m costs £264.



- (a) Calculate the cost for 1 square metre of this carpet. (the cost per sq.m)
(b) How much would a carpet measuring 8m by 6m cost?

2. A car uses 15 litres of petrol to travel 210 miles. How much petrol would the car use for a journey of 378 miles at the same rate of consumption?

3. Six bottles of wine is the exact amount you need to give 21 people one glass each.

- (a) How many bottles would you need to give 56 people one glass each?
(b) How many people could you give a glass of wine to if you had 32 bottles?



4. A town, with a population of 144, is under seige. It has enough food to last the people 24 days. If they take in an extra 48 people how long will the food supply now last?

5. Merlin is making up one of his favourite potions.

It has three powdered ingredients called *misill*, *canthor* and *ruari*.

For the potion the ratio of *misill* to *canthor* to *ruari* **must** be 2 : 3 : 12.

- (a) If he wishes to use 21 grammes of *canthor* in the potion, how many grammes of *ruari* will he need?
(b) He decides, in the end, to make up a potion using exactly 66 grammes of *ruari*.
What will be the total weight, in grammes, of the completed potion?

