

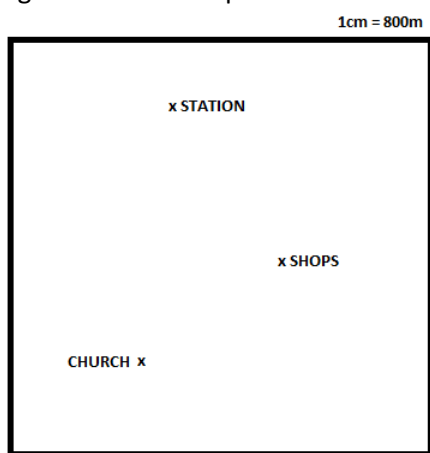
Scale Diagrams, Maps and Conversions –

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- (1) The scale for a model aircraft is 1:72
 (a) If the model has a part with a length of 3cm, what would be the actual size on the aircraft?
 (b) If the actual aircraft has a part 4 metres long, how long would the part be on the model? Give your answer in cm.

- (2) The scale for a building drawing is 1:500.
 (a) The windows on the diagram are 1.5cm high. What is the actual height of the windows on the building?
 (b) The length of the building is 26m. What is the length of the building on the drawing?

- (3) The diagram shows a map of a town.



- Using the scale given in the diagram:
 (a) Find the distance in metres from the Church to the Shops.
 (b) Find the distance from the Station to The Shops.
 The Park is 1200 metres due north of the Church.
 (c) Mark where the Park is on the map.

- (4) The exchange rate is £1 = \$1.25.

- (a) Convert £320 to dollars.
 (b) Convert \$540 to pounds.

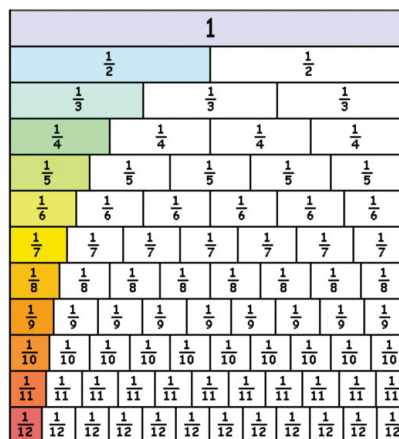
- (5) 22cm is approximately equal to 10 inches.
 String costs 3p per inch. John needs 88cm of string.
 Find the cost of buying the string.

- (6) On a map the scale is 1:5000
 On the map, the distance between Town A and Town B is 13cm. Find the distance between Town A and Town B in km.

- (7) 1Kg = 2.2lbs (pounds)
 Cheese is £3.65 a lb. Find the cost of 2.5kg of cheese.

- (8) 1 gallon is approximately 4.5 litres. 1 gallon of petrol costs £8. John needs 90 litres of petrol. Find the cost of the 90 litres of petrol.

(9)



Use the diagram above to show that $5/12$ is larger than $2/5$.

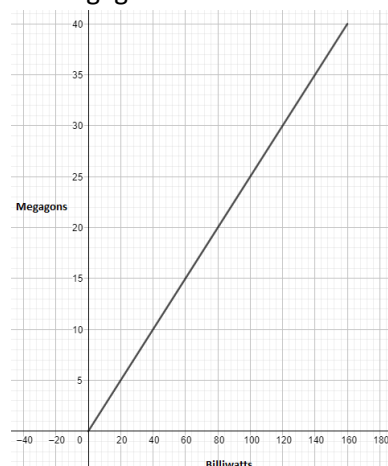
- (10) The diagram below shows a fully grown man standing next to a dinosaur. Estimate the height of the dinosaur at its tallest point.



- (11) Fred wants to buy a pair of headphones. In the USA they are \$256. In the UK they are £198. The exchange rate is £1 = \$1.28. Where should Fred buy them? You must show your workings.

- (12) One mile is approximately 1.6km. Fred's car does 20 miles to the gallon when he fills it with petrol. Fred travels 80km. How many gallons will his car use on this journey?

- (13) The graph below shows the conversion between Billiwatts and Megagons.



- (a) Use the graph to convert 22 Megagons to Billiwatts
 (b) Convert 240 Billiwatts to Megagons