

## Functional Skills Maths | Level 2 Non-Calculator Scaffolded Paper 4

1. Ria works in a paint shop.

She needs to make 1500 ml of purple paint.

Ria makes purple paint by mixing red paint and blue paint and white paint in the ratio 3 : 2 : 1.

She needs to know how much blue paint she needs.

a. Add all the ratio parts together.

b. Divide the total amount of paint by the combined ratio parts.

c. Multiply the answer for part b by the number of blue parts needed in the ratio. Give your answer in ml.

2. Here is some information about the number of houses sold by 20 sales people.

<b>Number of houses sold</b>	<b>Frequency</b>		
1 – 5	7		
6 – 10	6		
11 – 15	5		
16 – 20	2		

You need to work out an estimate for the mean number of houses sold.

- a. Put the midpoint intervals into the third column of the table.

- b. Multiply the frequency by the values in the third column. Put these in the fourth column.

- c. Total the fourth column.

d. Divide the total on the fourth column by the number of sales people.

e. What is the estimated mean of the number of houses sold?

3. Amanda wants to buy a new mobile phone.

She sees these two offers for the same mobile phone.

**Offer A**

2 year contract  
monthly cost £59  
and  
mobile phone cost £39.96

**Offer B**

SIM only  
monthly cost £11  
and  
mobile phone cost £889.92

Amanda says,

“I will save more than £300 in total over 2 years with offer B”.

Use estimation to check her statement is reasonable.

a. Round £59.

b. Round £39.96

c. Use the rounded figures to work out the cost of Offer A.

d. Round £11.

e. Round £889.92.

f. Use the rounded figures to work out the cost of Offer B.

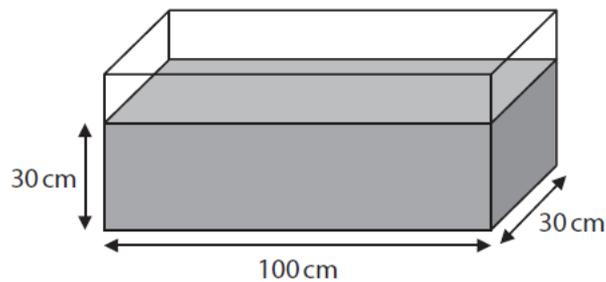
g. What is the difference between Offer A and Offer B?

h. Is Amanda's statement reasonable? Why do you think this?

4. Matt buys a new fish tank.

The fish tank is in the shape of a cuboid.

The diagram shows the tank.



Matt knows

- $1000\text{cm}^3 = 1 \text{ litre}$
- $1 \text{ gallon} = 4.5 \text{ litres}$

He can keep 2 small fish in the tank for every gallon of water in the tank.

Matt thinks he can keep 36 fish in the tank.

a. Work out the volume of water in  $\text{cm}^3$ .

b. Use the volume of water to work out the amount of water in litres.

c. Use the formula to work out how much water there is in gallons.

d. Use the formula to work out how many fish can safely fit in the tank.

e. Is Matt correct? Why do you think so?