

- 1) Use the bar models to help you to solve the following questions.



- a) A plane is loaded with three crates. Each crate has a mass of 3300kg. It is then filled with fuel. The mass of the fuel is twice the mass of a crate. What is the total mass of the cargo and fuel in tonnes?

|                    |       |       |      |
|--------------------|-------|-------|------|
| Total mass = _____ |       |       |      |
| Crate              | Crate | Crate | Fuel |

- b) A climber has climbed  $\frac{7}{8}$  of the way up a mountain and stops to rest 450m away from the summit. How high is the mountain in kilometres?

|                                  |  |  |  |  |  |  |      |
|----------------------------------|--|--|--|--|--|--|------|
| Total Height of Mountain = _____ |  |  |  |  |  |  |      |
|                                  |  |  |  |  |  |  | 450m |

- 2) Solve the following questions, using a bar model to help when needed.

- a) I walk for 1650m, cycle for 5.4km and run for 2.12km. How far did I travel altogether? Give your answer in km.
- b) A fish tank contains 10500ml of water. A bucket holds 1.75l of water. How many buckets of water will I need in order to fill my fish tank?

- 3) Some children are measuring the lengths of different items in their classroom:

Bookshelf = 0.8m  
 Exercise book = 30.5cm  
 Pencil = 140mm  
 Reading book = 12.5cm  
 Chair =  $1\frac{1}{4}$ m



What do the items measure altogether in metres?

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- 1) Three children record their answer to this problem.



The milk bottle holds 1900ml. I poured the same amount of milk into three cups and had 1675ml left in the bottle. How much milk is in each cup?



Jessica:  
7.5l

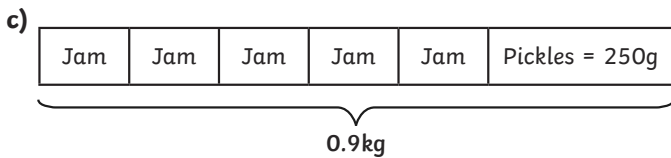
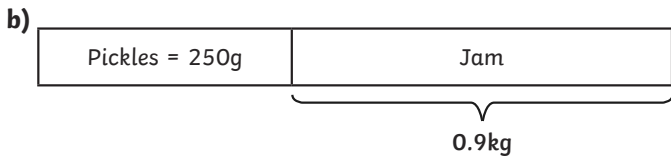
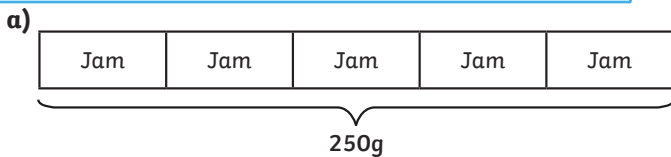
Jacob:  
0.075l

George:  
0.75l

Which child has given the correct answer?  
Explain how you know.

- 2) Which bar model best represents this problem? Solve the problem and explain your answer.

Five equally sized jars of jam and a 250g jar of pickles have a mass of 0.9kg altogether. Give the mass of one jar of jam.



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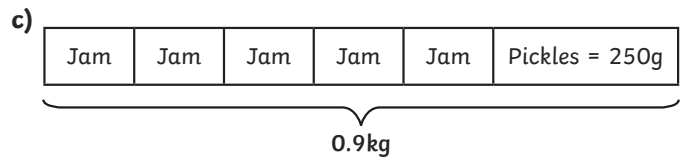
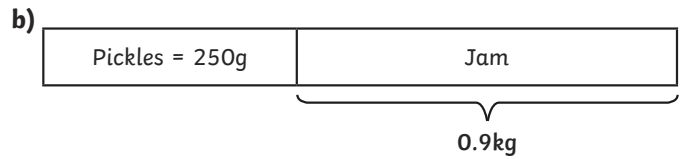
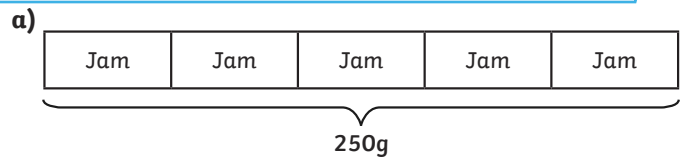
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- 1) Use the statements to match each volume of orange squash given below to each of the bottles.





| Volumes: |       |
|----------|-------|
| 0.11l    | 0.25l |
| 0.9l     | 775ml |
| 150ml    |       |

**A**  Contains more than bottle B but less than Bottle C.

**B**  Contains between 0.1 and 0.2l.

**C**  Contains 0.025l more than  $\frac{3}{4}$  l.

**D**  Contains a lower volume of orange squash than Bottle B.

**E**  Contains more than bottle C.

- 2) a) A teacher is buying pencils for the school.

Each pencil has a mass of 2.35g. There are 38 pencils in each box. The teacher decides to buy 30 boxes of pencils for the school.

Give the total mass of the pencils she has bought, in kilograms.




- b) In the factory that makes the pencils, each order for boxes of pencils is placed on a set of scales before it is sent out.


What is the most number of boxes and least number of boxes that could be on each set of scales?


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