Two types of questions: "How much ... ?" and "Is there enough ... ?"

Questions are related to money, length or weight (as the exam board calls it, really mass)

1. {Add }
   (a) Tian wants to buy two new suitcases.
   He wants to be able to keep them on top of his wardrobe.
   He draws a diagram of how the suitcases will fit on the wardrobe.

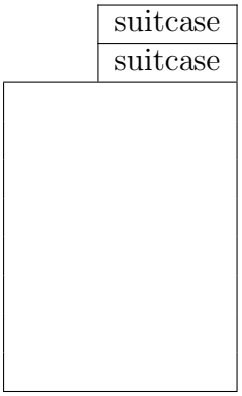

Diagram **not** to scale

   Tian's bedroom is 243 cm high.
   Tian's wardrobe is 101 cm wide, 60cm deep and 199 cm high.
   The suitcases are both 63cm wide, 42cm deep and 23cm high.

   Will both the suitcases fit on top of each other on top of the Tian's wardrobe?
   You must show how you get your answer.

   (b) Mia and Lizzy are designing a flat.
   Here are some of the items on their wish list.

Item	Detail	Price
Tablet	(10 inch)	£79.99
DVD player	(pink)	£24.99
Cushion	(penguin)	£8.99

   How much would 2 tablets, a DVD player and 2 penguin cushions cost?

2. {multiply "Is there enough? questions}
   (a) A grandfather is organising a meal out for 9 people.
   He sees this fixed price deal.

   2 courses £15.95
   3 courses £19.95

   He has a budget of £170.00

   If 9 people choose the 3 course deal, will he have enough money?
   You must show how you get your answer.

(b) Ellie wants to make a fruit cake.
She has 57 packs of Demerara sugar, which she would like to use up.
Each pack contains 2.5 grams of Demerara sugar.
Ellie wants to use a fruit cake recipe which needs 110 grams of Demerara sugar.
Does Ellie have enough sugar for the recipe?
You must explain how you decide.

(c) Bill says a froghopper can jump more than 110 times its body length.

A froghopper can jump 70 cm.
A froghopper body is 0.6 cm long.
Source www.news.bbc.co.uk

Is Bill correct?
You must explain how you decide.

3. {Add and multiply}

(a) {frequencyM × valueM + frequencyN × valueN}
Sabrina makes an order for 12 fence panels and 14 fence posts.
Each fence panel weighs 26.6 kg
Each fence post weighs 20.8 kg
The cost of delivery is shown in the table

Weight	under 25 kg	25 - 49.9 kg	50 - 199.9 kg	200 - 499.9 kg	500 kg or more
Delivery cost	free	£4.99	£7.99	£12.99	£14.99

What will the delivery cost be?
You must show all your working.

(b) {frequency × (valueM + valueN) or frequency × valueM + frequency × valueN}
Harley wants to fit 22 apple trees along the edge of a field.
The edge of the field is 100 m long.
Apple trees should have a planting width space between each tree.
The planting width can be worked out using the formula
"planting width = span of tree after 10 years + sun allowance"
The span of each apple tree after 10 years will be 3.3 m
The sun allowance is 1.5 m

Is the field long enough?
You must show your working.

(c) {frequency × value + fixed value}
Felix is planning an order of 6 kitchen cabinets.
Here are the costs for the order
cabinets £48.50 each
delivery £50.00
He has £500 to pay for the order.
Does Felix have enough money to pay for all the costs for the order?
You must show all your working.

4. {Questions like strand 1 to 3 BUT need a change in units}

   (a) Alfred says a small wild hare is 6 times a heavy as a small wild rabbit.

   A small wild rabbit weighs 400 grams.
   A small wild hare weighs 2.5 kg.
   Source www.en.wikipedia.org

   Is Alfred correct?
   You must explain how you decide.

   (b) Abby wants to put up a new fence across the full width of the garden.
   The full width of the garden is 15.4 m.
   The fence will be made of 8 fence panels and 9 fence posts.
   Each fence panel is 1.8 m wide.
   Each fence post is 10 cm wide.
   Will the new fence fit exactly?
   You must show your working.

   (c) Kate thinks that catching the ferry will be cheaper than driving across the toll bridge.
   Kate could take the ferry which costs £3.40 for a return ticket.
   She could also drive across the toll bridge.
   The toll bridge would cost 70 p for her morning journey and 50 p for her evening journey.
   The petrol she would use would cost £2.35
   Is the return ferry cheaper than the cost of the tolls and the petrol?
   You must show how you get your answer.

5. {Need to know and use there are 365/6 days in year}

   Last year Hannah spent 44 pence on cat food every day for a year.
   Hannah says "I've spent more than £160 on cat food last year"

   Is Hannah correct?
   You must show how you decide.

6. {Multiply and then multiply again}

   A box of kitchen rolls supplied to a supermarket contains 48 packets of kitchen rolls.
   Each packet of kitchen rolls contains 3 kitchen rolls.
   Each kitchen roll has 75 sheets of kitchen paper.
   Write down the number of sheets of kitchen paper in a box of kitchen rolls.