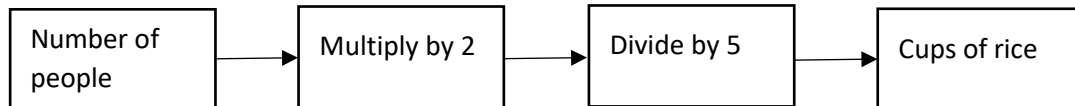


1) (2015 November)

Manda works at a charity for homeless people.

She needs to make lunch for 15 people.

Magda knows this rule to find the amount of rice she needs to cook.



Magda thinks she needs to cook 10 cups of rice for 15 people.

Is Magda correct?

Show why you think this.

Show a check of your answer.

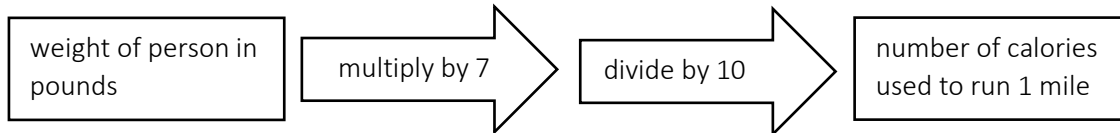
[4 marks]

2) (2018 May)

Donna and her friend Martin are training for a sponsored run.

The sponsored run is 26 miles.

The find this rule to calculate how many calories are used to run 1 mile.



Donna weighs 136 pounds.

Martin weighs 152 pounds.

Martin thinks he will use 300 more calories on the sponsored run than Donna.

Is Martin correct?

Show why you think this.

[5 marks]

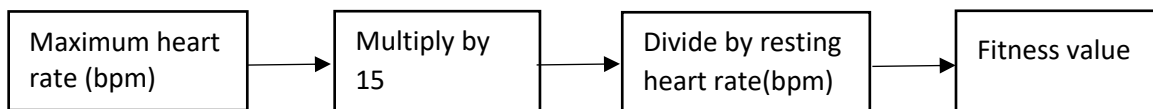
3) (2018 July)

Mikael plays football.

Mikael wants to know how fit he is.

He measures his heart rate in beats per minute(bpm).

Mikael uses this rule to work out his fitness value.



Mikael has a

- Maximum heart rate of 192 bpm
- Resting heart rate of 50 bpm.

A footballer should have a fitness value greater than 54.

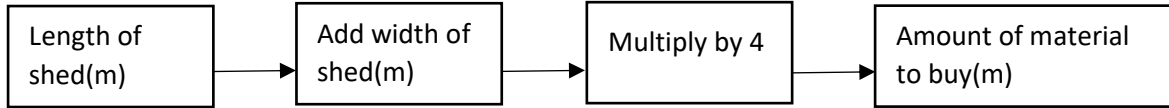
Does Mikael have a fitness value greater than 54?

[3 marks]

4) (2017 February)

Tim wants to hang curtains along all 4 walls of the shed.

He uses this formula to work out the amount of material he needs to buy.



The length of the shed is 7.25 m and width is 3.75 m.

Tim thinks he needs to buy 44 m of material.

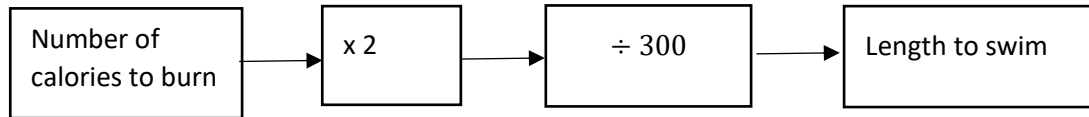
(b) Does Tim need to buy 44 m of material?

[3 marks]

5) (2015 July)

Jenny goes swimming at the fitness centre to burn calories.

She uses this rule to work out how many lengths of the pool she needs to swim.



Jenny wants to burn 350 calories.

(a) Show that Jenny needs to swim 75 lengths to burn 350 calories.

Use the space below to show clearly how you get your answer.

6) (2017 February)

Don is organising a comedy night for charity.

He is going to sell food at the comedy night.

Here is the price list.

Price List	
Slice of pizza	£2.75
Hot dog	£1.25
Hamburger	£1.95
Sandwich	£2.25
Chips	£ 1
Cake	£1.45

Don uses these instructions to work out how much money he can expect to make by selling food at the comedy night.

Work out the mean average price of all the items in the price list.
Multiply this mean average price by 80

Don thinks he can expect to make at least £140.

(a) Can Don expect to make at least £140 by selling food at the comedy night?

[4 marks]

7) (2016 June)

Vicky likes this kayak.

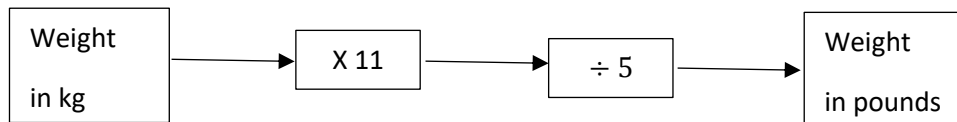
It has a weight of 17 kg.



Vicky must be able to lift the kayak.

She knows she can comfortably lift a weight of up to 33 pounds.

Vicky uses this rule to convert between kg and pounds.



(b) Will Vicky be able to comfortably lift the kayak?

Show a check of your working.

[4 marks]

8) (2015 October)

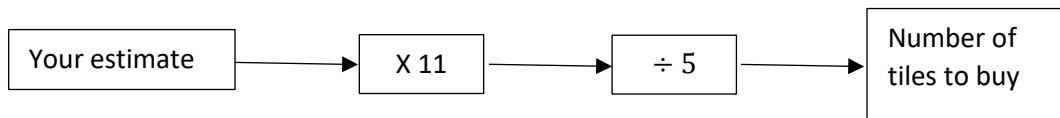
Anna wants to buy tiles for her bathroom floor.

She estimates that she needs 32 tiles.

The shop assistant says

‘Buy more tiles in case you need extra to cut.’

He gives her this rule.



Anna thinks the rule shows she needs to buy 40 tiles.

(b) Is Anna correct?

Show why you think this.

(2)

9) (2018 June)

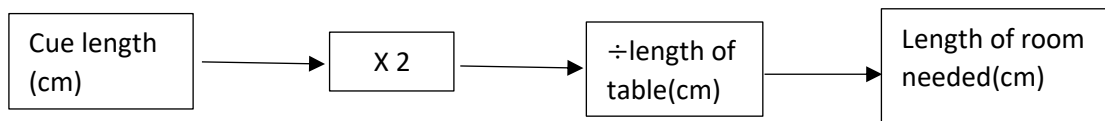
Talyin wants to put a snooker table in a room in his house.



The length of

- The snooker table is 270 cm
- The room is 5.5 m
- The cue Talyin uses to play snooker is 145 cm.

Talyin uses this rule to find out if the length of the room is enough to play snooker.



(a) Is the length of this room enough to play snooker on this table?

[4 marks]