

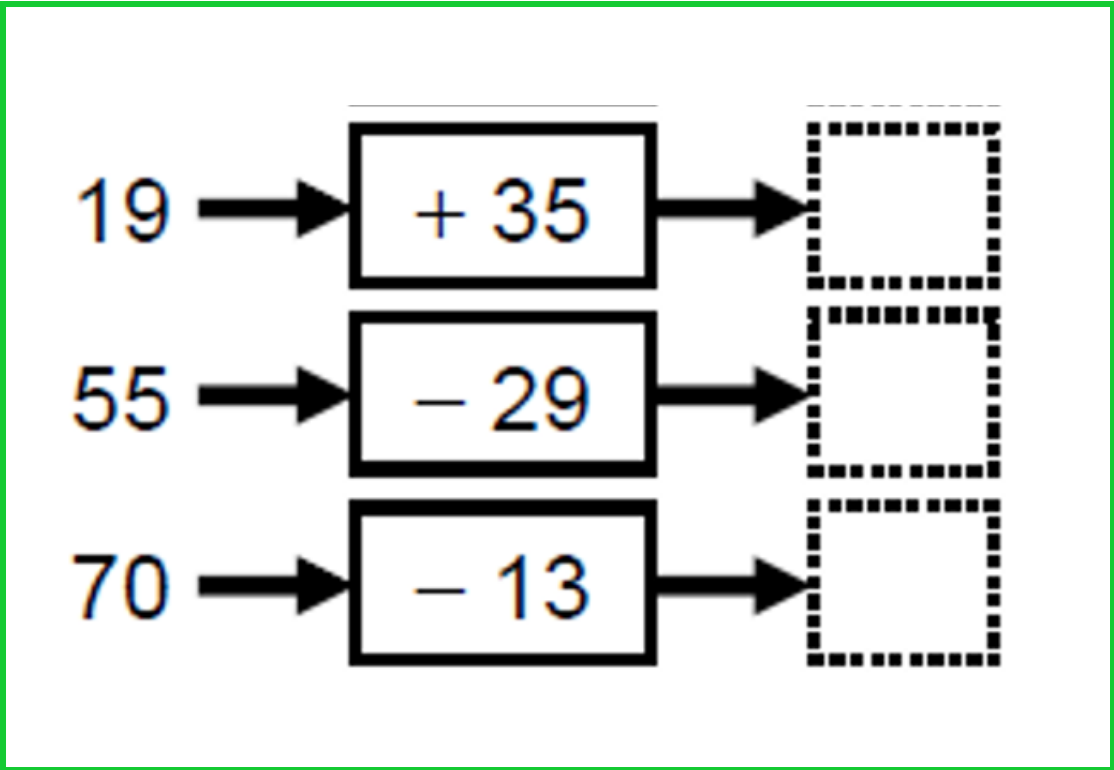
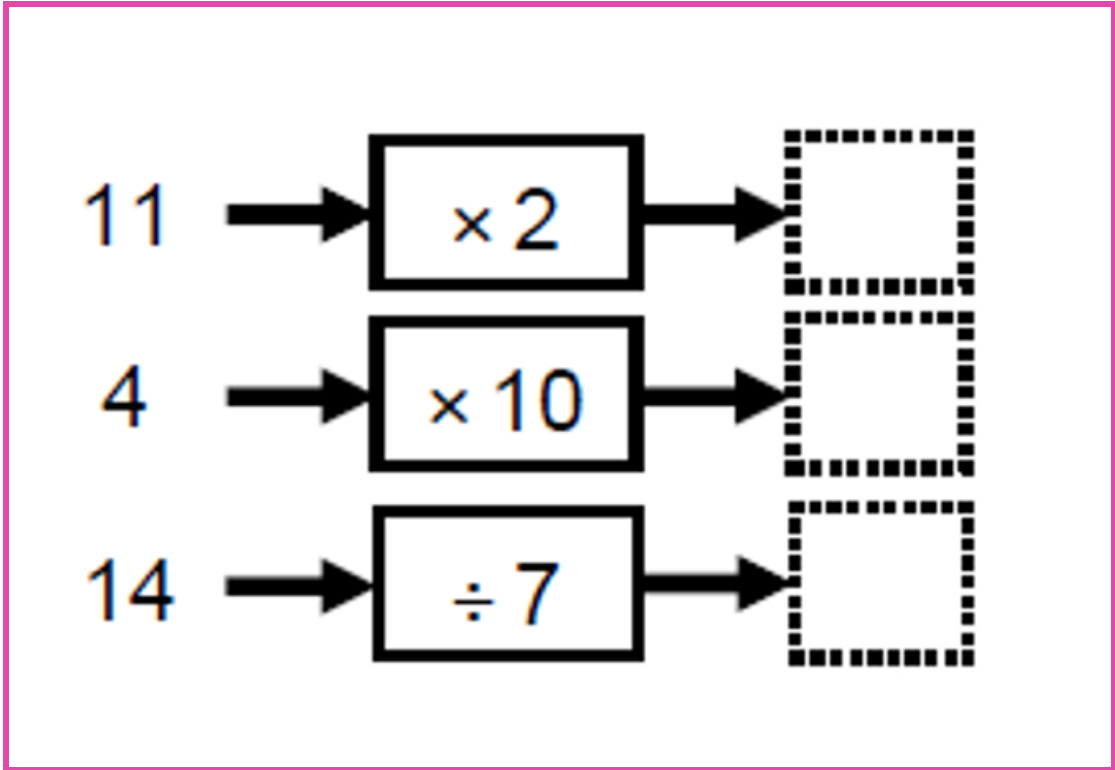
Formulae

- Use simple formulae expressed in words for one or two step operations

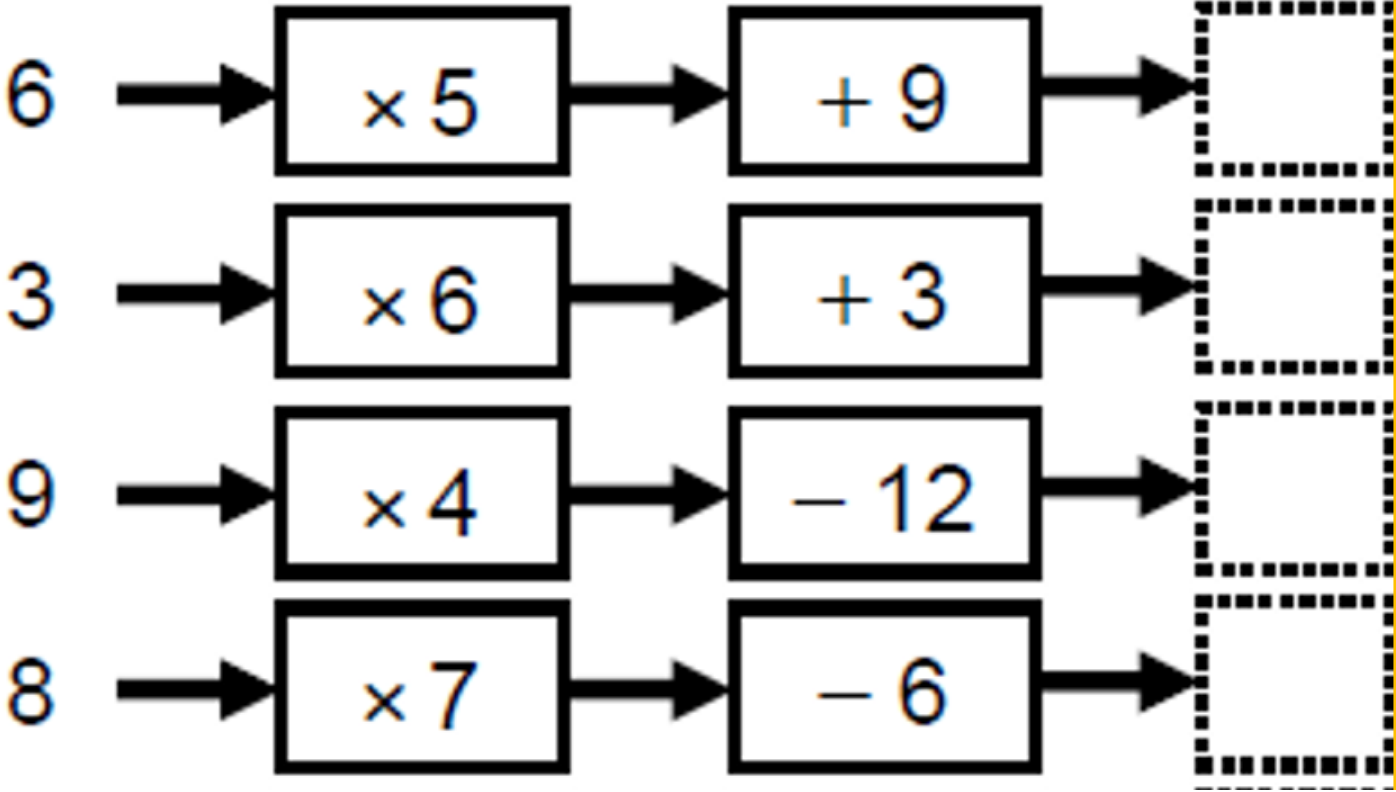
Recap

- 1) Tim has a job paying £6.85 per hour. If he works for 34 hours, one week, how much does he earn?
- 2) John takes boxes out of his van. The total weight of the boxes is 4.9 kg. The weight of each box is 0.7 kg Work out the number of boxes in John's van.

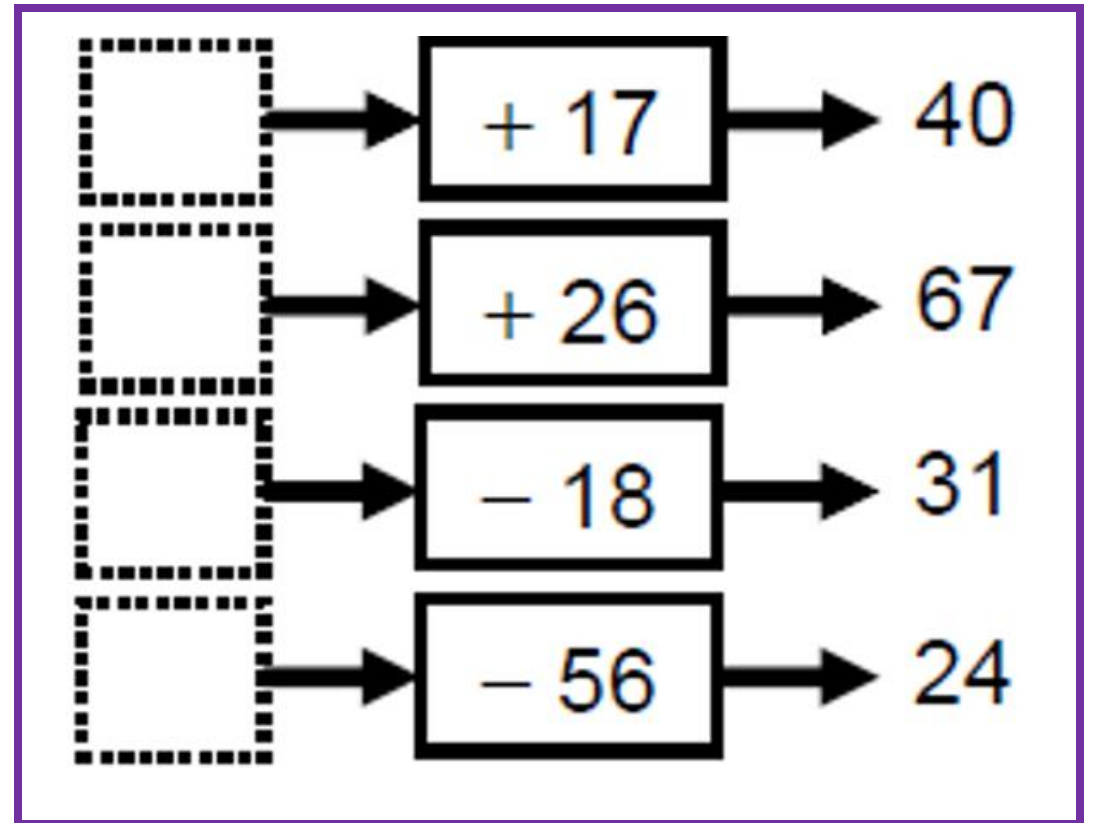
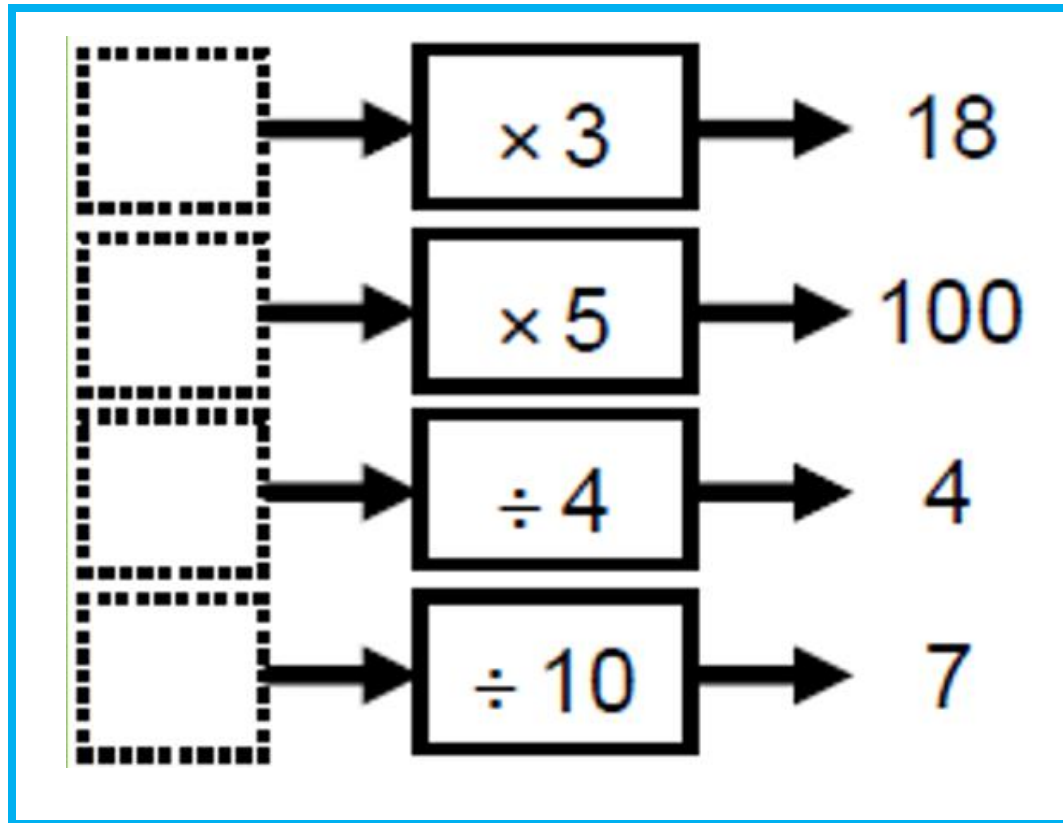
Function machines



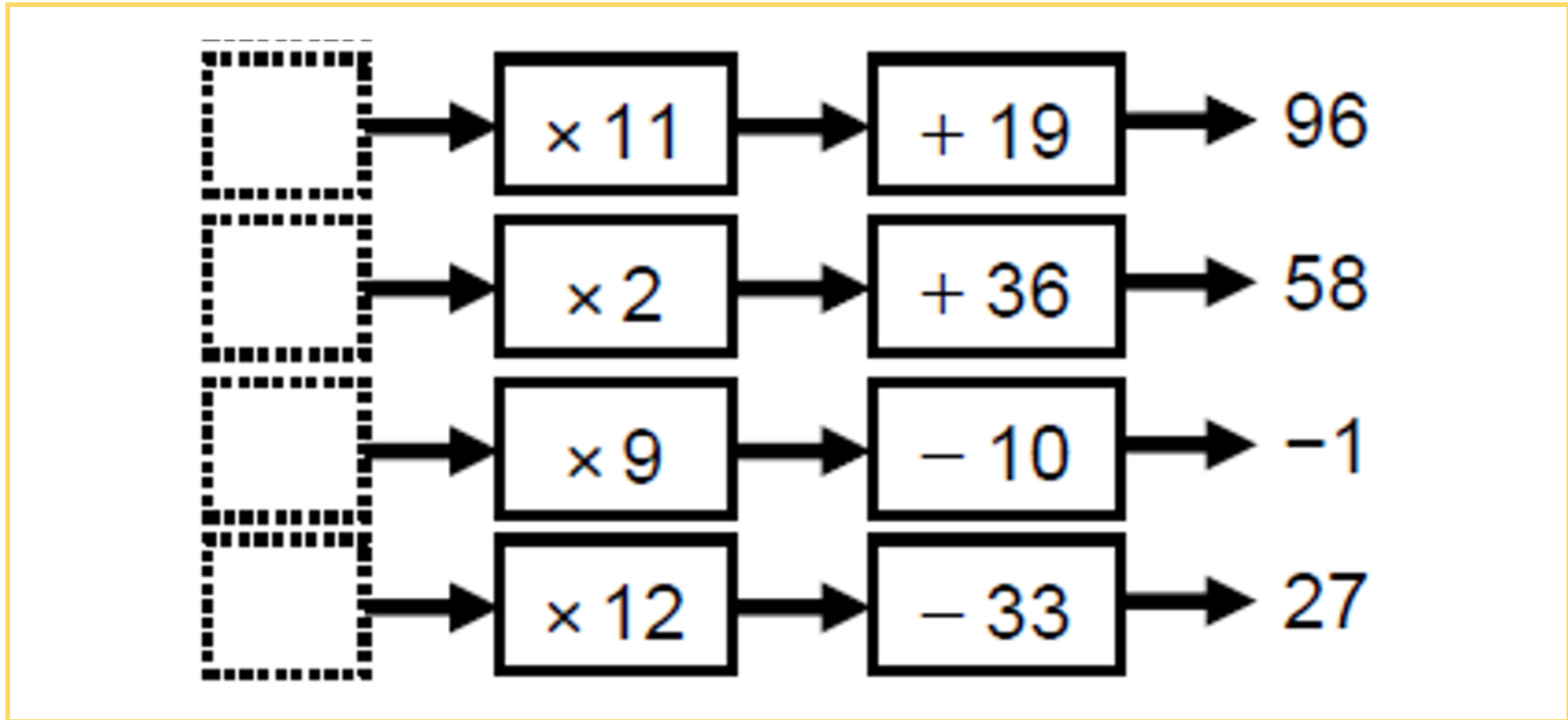
Function machines



Function machines



Function machines



Using in context

The average amount of fuel (in litres) a racing car uses is 75 litres per 100 km.

Amount of fuel needed = (distance x 75) ÷ 100

Calculate the amount of fuel needed for distances of:

- a) 25 km
- b) 5 km
- c) 1 km
- d) 180 km
- e) 300 km

Using in context

A racing car travels at 160 km per hour.

Time = distance ÷ speed

Calculate (in seconds) the time taken to travel:

- e) 90 metres
- f) 270 metres
- g) 180 metres
- h) 135 metres
- i) 225 metres

Using in context

The number of Twitter fans (in hundred thousands) an F1 driver has is:

Number of fans = number of wins x 10

How many Twitter fans would a driver have if he had won:

a) 1 race

b) 3 races

c) 5 races

e) 18 races

Let's try some exam questions

Rory is a painter.
He is going to paint a wall for Justine.

Rory uses this rule to work out the price for this job.



Rory says

The job will take 3 hours.
The cost of the paint is £16

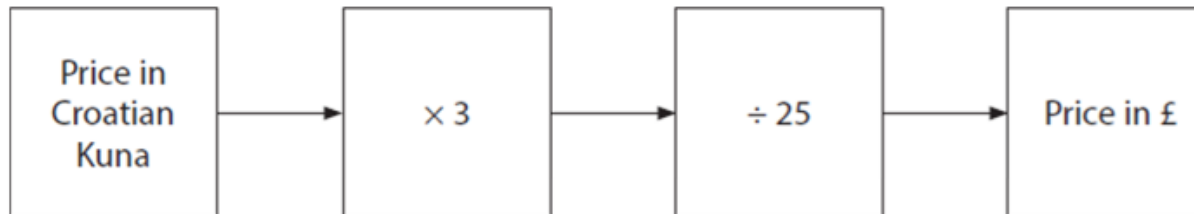
Work out the price for this job.

Exam questions

Winston wants to go on a boat trip.
He sees these offers for a half day boat trip.

Offer A	Offer B
Boat trip	Boat trip
£26.50	230 Croatian Kuna

Winston knows this rule to convert from Croatian Kuna to £.



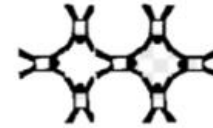
Winston wants to know which offer is cheaper.

Which offer is cheaper?

Exam questions

Tariq plans a parachute formation jump for charity.

He will ask skydivers to hold the hands or feet of other skydivers to make a pattern in the sky.



It takes 7 skydivers to make a pattern with 2 rings.

Tariq knows this rule to work out the number of skydivers for 2 rings or more.



Tariq wants a formation with 8 rings.

He thinks he needs 33 skydivers.

Is Tariq correct?

Show why you think this.

Exam questions

Magda 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.

Exam questions

Donna and her friend Martin are training for a sponsored run.
The sponsored run is 26 miles.

They 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.

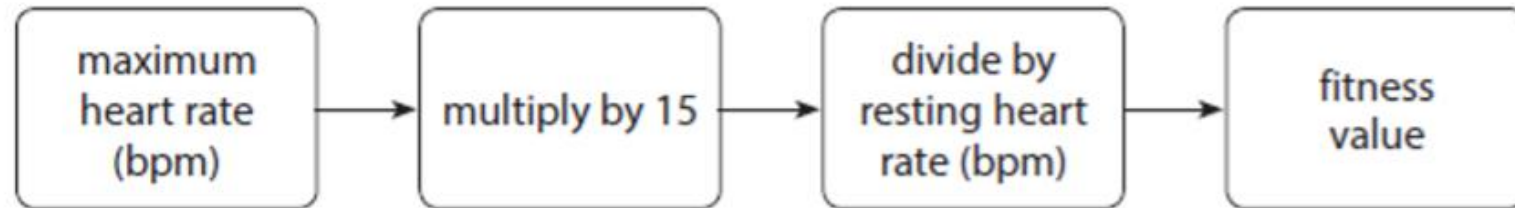
Exam questions

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.