

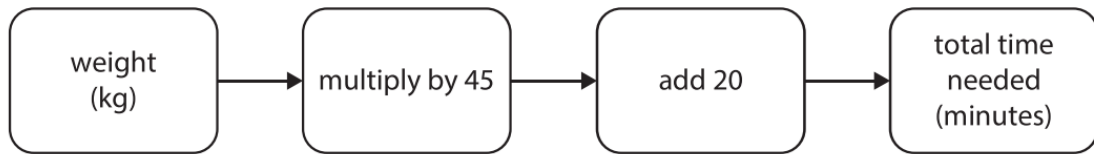
Non-calculator Questions

Edexcel

1.

Alex is going to cook a chicken.

He uses this rule to work out the total time needed to cook the chicken.



The weight of the chicken is 3 kg.

Use the rule to find the total time needed to cook the chicken.
Give your answer in minutes.

(3)

minutes

NCFE

2.

Dennis thinks he is spending too much money on fuel for his car.

He uses this formula to work out how much fuel in **litres** he uses in a year.

$$\boxed{\text{Fuel used in litres}} = \boxed{\text{Distance travelled in miles}} \times \boxed{4.5} \div \boxed{\text{Miles per gallon}}$$

Last year he travelled 10 000 miles.

His car did 40 miles **per gallon**.

How many **litres** of fuel did Dennis use last year?

[3 marks]

Your answer:

litres

Open Awards

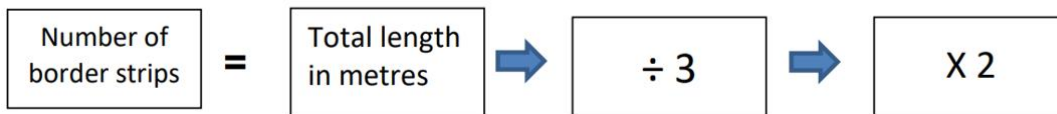
3.

Janice wants to put border strips around **three** sides of her square lawn. The length of one side of the lawn is 14 metres.



Border strip

To calculate the number of strips she needs, Janice follows this rule:



Each border strip costs £9.89.

Show an **estimate** of the cost of the required number of border strips. (4 marks)

Show your calculations and/or workings out here:

Write your answer in this box.

AQA

4.

Carly wants to hire a hall for the party.

The charge for hiring the hall is worked out using this formula.

$$\text{Charge} = \text{£}50 + \text{£}30 \times \text{number of hours it is hired for}$$

Carly is charged £140 for hiring the hall.

For how many hours does she hire the hall?

[2 marks]

Answer _____

Calculator Questions

Edexcel

1.

Ryan will drive his car in Spain.

The speedometer in the car shows the speed in miles per hour only.
He will be driving on a road with a speed limit of 100 kilometres per hour.

Ryan uses this rule to find this speed in miles per hour.



Ryan thinks that 70 miles per hour is the same as 100 kilometres per hour.

Is Ryan correct?

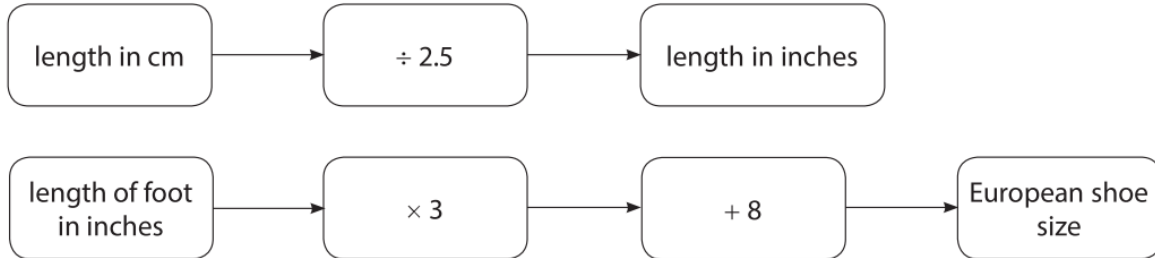
(3)

Level 1 Maths Formulae Exam Questions

2.

Joanne is buying a pair of shoes in Europe.
The length of her foot is 27.5 cm.

Joanne uses these rules to work out her European shoe size.



Joanne thinks her European shoe size is 38

Is Joanne correct?
Show why you think this.

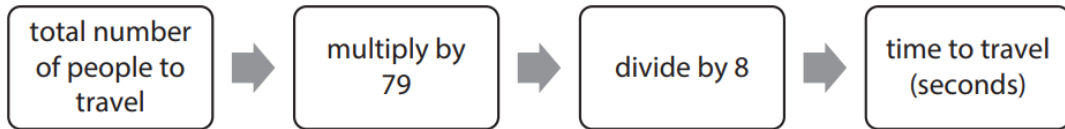
(4)

3.

Natasha is designing a building with a restaurant on the top floor.

She needs to know how long it will take for a total of 40 people to travel in the lift from the ground floor to the restaurant.

Natasha uses this formula.



Natasha thinks it will take more than 6 minutes for a total of 40 people to travel in the lift from the ground floor to the restaurant.

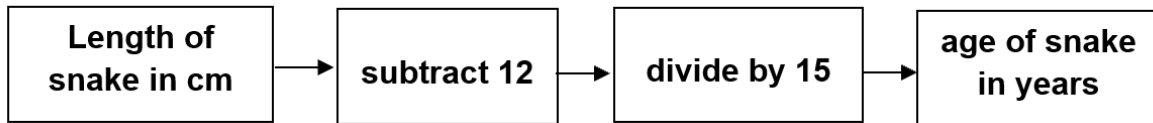
Is Natasha correct?
Show why you think this.

(4)

NCFE

4.

The age of a young Garter snake can be estimated using this rule:



An adult Garter snake is about 72 cm long.

What age is a Garter snake when its length is 72 cm?

[3 marks]

Blank area for working out the answer.

Your answer:

years

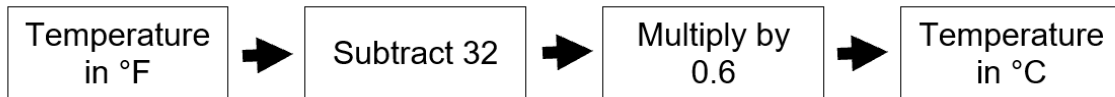
5.

In 2018, the average winter temperature in Svalbard was -4°F

In 2019, this increased by 9°F

Amena wants to work out the average winter temperature in 2019 in $^{\circ}\text{C}$

She uses this rule:



What was the 2019 average winter temperature in $^{\circ}\text{C}$?

[3 marks]

Blank area for working out the answer.

Your answer:

$^{\circ}\text{C}$

City & Guilds

6.

A gardener needs to order fertiliser for a piece of land.
The piece of land is a square with sides measuring 8 metres.

This formula shows how many **grams** of fertiliser she needs.

$$\text{grams of fertiliser needed} = \text{length in metres} \times \text{width in metres} \times 25$$

The supplier sells these bags of fertiliser.



Which bag of fertiliser should the gardener order? Include figures to explain your answer.

Show all your working.

_____ kg bag

Explanation

(3 marks)

Level 1 Maths Formulae Exam Questions

7.

The formula below can be used to calculate interest on a savings account after one year:

$$\text{amount put into account} \times \text{interest rate as a decimal}$$

A woman puts £2 500 into an account. The interest rate is 5%.

What will be in the account after one year?

Show your working

£ _____

(3 marks)

Highfield

8.

Ben and Jo work out how much money they can borrow.

- Ben earns an average of £538.50 a week.
- Jo earns £2,725.50 a month.

They have been told to use this formula to work out the maximum amount of money that they can borrow.

$$\text{Total amount of money} = 3.5 \times \text{Ben's yearly wage} + 3.5 \times \text{Jo's yearly wage}$$

They think they will be able to borrow more than a quarter of a million pounds. Are they correct?

Show your working out and write the answer in the box below.

(5 marks)

Answer: _____

AQA

9.

Personal finance

You can use these steps to work out the amount of income tax you pay each **month**.

Step 1 Work out monthly salary – 987.5

Step 2 Work out answer to **Step 1** \div 5

Cho has a salary of £24 000 per **year**.

Helen has a salary of £1720 per **month**.

How much **more** income tax does Cho pay than Helen each **month**?

[4 marks]

Answer £ _____

10.

Beth earns pocket money by doing jobs at home after school.

Sandra uses this formula to work out how much pocket money Beth receives **each week**.

$$\text{Weekly pocket money} = \text{£}2.50 \times \text{number of jobs done} + \text{£}5$$

Beth wants to buy a pair of trainers for £70

She saves her pocket money for 3 weeks.

She did

- 5 jobs in the first week
- 9 jobs in the second week
- 10 jobs in the third week.

Is this enough to buy the trainers?

You **must** show your working.

[4 marks]
