

(Selected) Wordy Questions – AQA Foundation

(2017-2023 & Specimen)

November 2022 - Paper 3 – Q18

11 identical full tins of red paint hold a total of 3630 ml

All the paint from 4 of these tins is poured into an empty bucket.

The bucket can hold 2500 ml

Tins of white paint each hold 140 ml

Can all the white paint from 9 tins be added to the bucket?

You **must** show your working.

(4)

November 2022 - Paper 3 – Q23

Joe, Kim and Lisa each have an amount of money.

Joe has £72

Joe's amount : Kim's amount = 6 : 5

Lisa's amount is $1\frac{1}{2}$ times Joe's amount.

Show that, in total, they have **less** than £250

(3)

June / November 2021 - Paper 2 - Q17

Harry and his sister Jess have some money in the ratio Harry : Jess = 1 : 4

Harry has £7.35

They pay £16.99 for a present for a friend.

Harry uses $\frac{1}{3}$ of his money.

Jess pays the rest.

How much money does Jess have left?

(4)

June / November 2021 - Paper 2 - Q21

Lynn works as a bus driver.

She is paid £10.80 per hour for the first 38 hours she works each week

She is paid 25% **more** per hour for each extra hour she works.

One week, Lynn was paid £491.40

In total, how many hours did she work that week?

You **must** show your working.

(5)

June / November 2021 - Paper 2 - Q27

A ball contains 5000 cm^3 of air.

More air is pumped into the ball at a rate of 160 cm^3 per second.

The ball is full of air when it becomes a sphere with radius 15 cm



$$\text{Volume of a sphere} = \frac{4}{3} \pi r^3 \quad \text{where } r \text{ is the radius}$$

Does it take **less than** 1 minute to fill the ball?

You **must** show your working.

(4)

June / November 2021 - Paper 3 - Q27

The heel of a shoe exerts a pressure of 198 pounds per square inch.

Convert this pressure into kilograms per square centimetre.

Use

1 pound = 0.45 kilograms

1 square inch = 6.25 square centimetres

(3)

June / November 2020 - Paper 2 – Q18

Kim buys pet food in 1.5 kg packs.

Her pet needs 0.8 kg of food each week.

She wants to have enough food for the next 14 weeks.

She already has two 1.5 kg packs.

Work out the smallest number of packs she needs to buy.

You **must** show your working.

(4)

November 2018 - Paper 2 – Q13

A charity sends an appeal letter to 3000 people.

The letter asks for a donation of money.

Here is some information about the last appeal letter the charity sent out.

$\frac{1}{2}$ of the people who were sent the letter made a donation.
The average donation was £8.60
$\frac{1}{3}$ of the people who made a donation filled in a tax form. The government adds 25% to the donations of these people.

Using this information,

work out the amount the charity can expect to receive from this appeal.

(6)

November 2018 - Paper 3 – Q16

Amal drives her car for work.

She claims 40p per mile from her employer.

Amal's car travels 52 miles for each gallon of petrol.

She pays £5.36 per gallon for petrol.

On one journey Amal drives 260 miles.

For this journey, how much **more** does she claim than she pays for petrol?

(4)

June 2018 - Paper 2 – Q11

Nick has a 6-digit code.

He remembers it as three 2-digit numbers.

The first number is between 10 and 20

The second number is 3 times the first number.

The third number is 5 times the first number.

All six digits are **different**.

Work out the code.

(3)

June 2018 - Paper 1 – Q11

300 passengers go on a coach trip.

Each coach takes 50 passengers.

Each passenger pays £25

The table shows the costs for the coach company.

	Cost for each coach
Pay for driver	£90
Fuel	70p per mile

Each coach travels 200 miles.

Work out the **total** profit the company makes from this trip.

(6)

Specimen - Paper 2 – Q17

Mr Jones works for five days each week.

If he uses his car to travel to work,
each day he drive a total distance of 24.2 miles
his car travels 32.3 miles per gallon of petrol
petrol costs £1.27 per litre.

If he uses the bus to travel to work, he can buy a weekly ticket for £19.50

Use 1 gallon = 4.5 litres

Is it cheaper if he uses his car or the bus to travel to work?

You **must** show your working.

(5)

Specimen - Paper 3 – Q13

Hayley and Tom have £2000 to spend on food at their wedding.

Here are their two options.

Wonderful Weddings!

Normal price £32 per person

Special offer

10% off

Kim the Caterer

Number of people	Price per person
100 & over	£24.50
80 to 99	£26.50
60 to 79	£28.50
up to 59	£30.50

Work out the **maximum** number of people they can pay for.

Show working to compare the maximum number of people for **both** options.

(5)