

Number

Maths Non-Calculator Past Paper Questions

Write down 0.4, 15% and $\frac{7}{20}$ in ascending order.

You must show all your working.

[3]

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Smallest value  Greatest value

Team A and Team B play in a competition.

Team A has nine more points than Team B.
Team A has four times as many points as Team B.

How many points does each team have?

[2]

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Team A: points

Team B: points

(a) Estimate the value of $\frac{41.3 \times 29.6}{198.7}$.

You must show all your working.

[2]

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(b) Given that $54 \times 84.2 = 4546.8$, write down the exact value of each of the following.

(i) $540 \times 842 =$

[1]

(ii) $\frac{4546.8}{5.4} =$

[1]

(iii) $\frac{454.68}{84.2} =$

[1]

(a) Express 700 as a product of its prime factors in index form.

[3]

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(b) The number 33554432 is equal to 2^{25} .

Explain how this tells you that 33554432 is not a square number.

[1]

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. A **whole** number is written on a card.

You are given three clues to help you work out the number on the card.

Clue 1 : **Double** the number is between 8 and 18 inclusive.

Clue 2 : The number is a prime number.

Clue 3 : The number is **not** a factor of 100.

What is the number on the card?

You must show all your working.

[3]

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The number on the card is

Calculate the value of $(5.41 \times 10^5) + (2.3 \times 10^4)$.

Give your answer in standard form.

[2]

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(a) Write down the next two numbers in the following sequence.

[2]

-19 -15 -11 -7

(b) Rods are used to make a sequence of patterns as shown below.



Pattern 1



Pattern 2



Pattern 3

Pattern 1 uses six rods.

(i) How many rods are required to draw Pattern 4?

[1]

(ii) Pattern 37 requires 186 rods.

How many rods are required to draw Pattern 38?

[1]

(c) Describe in words the rule used in the following sequence.

[1]

243 81 27 9

In this question, you must use only the numbers 3 and 7 to make other numbers.
You must only add or subtract.

For example, if we wanted an answer of 11, we could write

$$7 + 7 - 3 = 11.$$

Show how you can get each of the following answers.

(a) 2

[1]

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Write your solution in the box below.

	= 2
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(b) 8

[1]

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Write your solution in the box below.

	= 8
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(c) 19

[1]

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Write your solution in the box below.

	= 19
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(a) Express 315 as a product of its prime factors in index form.

[3]

[illegible]

(b) What is the Highest Common Factor (HCF) of 315 and 42?

[2]

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface. There is no handwriting or other markings on the paper.

Estimate the value of

$$\frac{30.21 \times 1.98^3}{0.49}$$

[3]

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- (b) Calculate $(3.4 \times 10^{-5}) \times 700$.
Give your answer in standard form.

[2]

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Calculate each of the following.

(a) 0.4×0.7

[1]

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(b) $13.8 - 7.45$

[1]

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(c) $3^3 - 2^4$

[2]

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(d) $\frac{9}{10} - \frac{3}{5}$

[2]

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Circle either TRUE or FALSE for each of the following statements.

[3]

20% of 70 is the same as 70% of 20.	TRUE	FALSE
$\frac{1}{2}$ of $\frac{1}{8}$ is the same as $\frac{1}{8}$ of $\frac{1}{2}$	TRUE	FALSE
A number is halved. The answer is halved, and then this answer is halved again. This gives the same answer as dividing the original number by 6.	TRUE	FALSE
Dividing a number by 15 is the same as first dividing by 10 and then dividing the answer by 5.	TRUE	FALSE
Multiplying a number by 2.5 is the same as first multiplying by 10 and then dividing the answer by 4.	TRUE	FALSE

A shop has 31 plant pots.
Some are blue, some are yellow and the rest are red.
There are five more blue pots than yellow pots.
There are four times as many blue pots as there are red pots.

Calculate how many pots there are of each colour.

[3]

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Blue Yellow Red

Two types of number are added or multiplied together.
 Complete the table below to show whether the answer will be odd or even.
 One answer has been filled in for you. [3]

Calculation:	Answer will be:
even number + even number	even
even number + odd number	
odd number + odd number	
even number × even number	
even number × odd number	
odd number × odd number	

Find, in standard form, the value of each of the following.

(a) $\frac{7.5 \times 10^6}{5000}$

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[2]

(b) $(2.3 \times 10^3) + (6.4 \times 10^4)$

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[2]

Complete each row of the following table.
The first row has been completed for you.

[3]

Place	Temperature at 10 a.m.	Change	Temperature at 6 p.m.
Cwmbran	2°C	Down 4°C	-2°C
Llanelli	-3°C	Down 1°C	
Llanidloes	-4°C		-1°C
Porthmadog		Up 4°C	3°C

Write 7%, $\frac{3}{5}$ and 0.3 in ascending order.

You must show all your working.

[3]

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Smallest value \longrightarrow Greatest value

Find the whole number which satisfies all of the following conditions:

- It is a whole number between 1 and 40 inclusive.
- The number is a multiple of 4 but not a multiple of 8.
- 3 is a factor of this number.
- The number is a square number.

[3]

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The whole number is

(a) Express 60 out of 300 as a percentage.

[2]

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Answer is %

(b) Some people were asked a question.

40% of the people answered 'Yes'.

A sketch of a pie chart showing this information is shown below.

Calculate the size of angle x so that the pie chart can be drawn accurately.

[2]

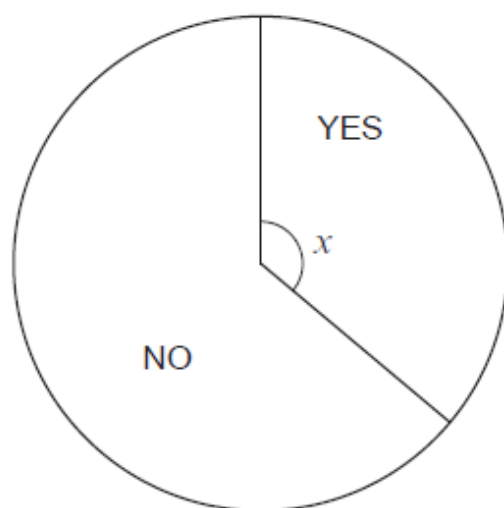


Diagram not drawn to scale

Circle the correct answer for each of the following.

(a) $81 =$

[1]

3^3

9^3

9^4

18^2

3^4

(b) $2 \cdot 1^5 =$

[1]

$32 \cdot 5$

$10 \cdot 5$

$40 \cdot 84101$

$30 \cdot 84101$

$32 \cdot 1$

(c) $(12 \cdot 96)^{\frac{1}{2}} =$

[1]

$6 \cdot 48$

$3 \cdot 6$

$4 \cdot 32$

$3 \cdot 3$

$2 \cdot 16$

Number

Maths Calculator Past Paper Questions

(a) Calculate 39% of £576.

[2]

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(b) Calculate $\frac{3}{7}$ of 100.

Give your answer correct to the nearest whole number.

[2]

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(c) How many quarters are there in 10?

[1]

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(d) What **fraction** is equal to 50% of $\frac{1}{6}$?

[1]

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(e) Circle the fraction that is a recurring decimal.

[1]

$$\frac{21}{35}$$

$$\frac{10}{12}$$

$$\frac{17}{68}$$

$$\frac{15}{24}$$

$$\frac{51}{170}$$

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Calculate the answer when,

'the largest prime number that is a factor of 28'
is multiplied by

'the smallest prime number that is factor of 15'. [2]

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(a) Calculate $\sqrt{8.5^3 + (4.5 - 0.76)^2}$, correct to 3 significant figures. [2]

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(b) Calculate the reciprocal of -0.07 , correct to 1 decimal place. [2]

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(a) Calculate each of the following.

(i) $4 \cdot 8^2 + \sqrt{28 \cdot 09}$

[2]

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(ii) $\frac{4}{9}$ of 78.3

[1]

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(iii) $1000 \times$ (the reciprocal of 8)

[2]

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(b) Write 437.6 correct to 2 significant figures.

[1]

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In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

18% of £256 is shared in the ratio 2 : 1.

Calculate the value of the larger share.

Give your answer to the nearest 10p.

You must show all your working.

[5 + 2 OCW]

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When a number is reduced by 15%, the answer is 6154.
What is the original number?

[3]

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Using only the numbers in the following list,

57 58 59 60 61 62 63 64 65

write down

(a) a prime number, [1]

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(b) a cube number, [1]

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(c) a factor of 186, [1]

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(d) a multiple of 7.25. [1]

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Complete each row of the following table.
The first row has been done for you.

[3]

Place	Temperature at midday	Change	Temperature at following midday
Holyhead	-1°C	Up 3°C	2°C
Dolgellau	-3°C		1°C
Cardigan	2°C	Down 3°C	
Newport		Up 2°C	-2°C

Show clearly whether the following statement is true or false.

[4]

'If you increase a positive number by 10% and then decrease that new value by 10%, you get back to your original number.'

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(a) Calculate $12\frac{1}{2}\%$ of 1176. [2]

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(b) What is the square root of 36 760?
Give your answer correct to 2 significant figures. [2]

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(c) Evaluate $\frac{4.3 \times 8.6}{9.3 - 1.4}$.
Give your answer correct to 1 decimal place. [2]

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Fill in the boxes so that the following addition is correct.

[3]

1		9	
7	8		+
<hr/>			
	4	1	
<hr/>			

Space for working:

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In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

A task takes 6 hours 15 minutes to complete.

$\frac{2}{5}$ of this time is spent on planning.

How long was spent on the **rest of the task**?
Give your answer in hours and minutes.

You must show all your working.

[5 + 2 OCW]

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A coach company runs trips to Llandudno and Aberystwyth.
 The information kept by the company about the passengers on these trips includes:

- the destination of the trip,
- their ages.

The table below shows the number of passengers who went to Llandudno or Aberystwyth last Tuesday.

	Llandudno	Aberystwyth
Passengers 60 years old and over	323	217
Passengers under 60 years old	122	58

- (a) What was the ratio of passengers 60 years old and over to passengers under 60 years old?
 Give your answer in its simplest form. [3]

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Passengers 60 years old and over : passengers under 60 years old

= :

- (b) One of these passengers was selected at random.
 What is the probability that this passenger went on the trip to Llandudno? [2]

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Sian thinks of a number.
Its value is increased by 25%.

Express the original number as a percentage of the increased number.

[3]

Number

Numeracy Non-Calculator Past Paper Questions

In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

Sioned works in a grocery shop.
She has made a poster for the window of the shop.

	
Strawberries £8.60 per kg	Raspberries Today's special offer per kg

Sioned has forgotten to write the price of raspberries on the poster.

Mr Thomas buys $\frac{1}{4}$ kg of strawberries and $1\frac{1}{2}$ kg of raspberries.

He pays with a £20 note.

He gets £2.55 change.

Calculate the price of 1 kg of raspberries.

You must show all your working.

[6 + 2 OCW]

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Aled and Gareth went on holiday to France.

(a) The total cost of the holiday was £660.

- Aled's mother paid $\frac{1}{3}$ of the total cost.
- Aled and Gareth shared the remaining cost in the ratio 1 : 9.

(i) Calculate how much each person paid towards the cost of the holiday. [4]

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Aled's mother paid £

Aled paid £

Gareth paid £

(ii) Explain how you could use your answers to check that they are correct. [1]

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(a) *Sam's Garden Centre* buys trees to sell.

Sam bought 200 trees.
Each tree cost Sam £25.

22% of the trees were not sold.
Sam sold all the other trees for £40 each.

How much profit did Sam make?

You must show all your working.

[5]

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On the water company's website she finds the following:

Water charges

- The waste water output is calculated as 80% of the fresh water usage.
- Fresh water usage costs £1.10 per m³.
- Waste water output costs £1.50 per m³.

Calculate Ms Logan's water bill.

[4]

In this question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

Liam buys 3 kg of apples and 2.5 kg of pears.

Pears cost £3.40 per kilogram.

Liam pays a total of £12.40 for the apples and pears.



Calculate the cost of one kilogram of apples.

[6 + 2 OCW]

(a) Waldo doesn't mind which type of pasta he buys.

In the supermarket, Waldo sees the three packets of pasta shown below.

Strozzapreti pasta	Fusilli pasta	Rigatoni pasta
		
500g for £1.25	400g for 96p	250g for 65p

Which pasta offers Waldo the best value for money?
You must show all your working.

[3]

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(b) An old recipe is given below.

Arrabiata pasta sauce Serves 4 people
1 onion
2 × 0.88 lb tins of tomatoes
3 chillies

- (i) How many chillies would be needed to make Arrabiata pasta sauce for 48 people? [2]

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- (ii) How many **kilograms** of tinned tomatoes are needed to make Arrabiata pasta sauce to serve 20 people? [3]

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- (c) A pasta factory in Italy produces 5 km of spaghetti per day.
How many centimetres of spaghetti will this factory produce in 7 days?
Give your answer in standard form. [3]

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Agata is paid in pesos.

The tax rates are as follows:

Band	Taxable income	Tax rate
Personal allowance	Up to 200 000 pesos	0%
Standard rate	200 000 pesos to 500 000 pesos	10%
Further rate	over 500 000 pesos	35%

Agata’s total earnings before tax are 600 000 pesos.

Calculate how much tax Agata is due to pay.
You must show all your working.

[6]

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(b) Inside one of the boxes is an old clock.
Gwilym takes the clock to be valued.
It is valued at £56.
The clock has decreased in value by 30% from last year.

Calculate how much the clock was worth last year.



[2]

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- (a) Jasmine entered herself, Sophie and Bryn as a group in a talent contest. Bryn only had a minor part.

Bryn, Sophie and Jasmine won the contest.
They shared the prize money in the ratio 2 : 6 : 7, with Bryn getting the smallest share.
Jasmine won £560, the largest share.

- (i) How much money did Bryn and Sophie each win? [4]

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Bryn receives £

Sophie receives £

- (ii) Jasmine gave 15% of her winnings to charity.
How much did Jasmine have left? [2]

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- (b) The talent contest is held once a year.
Every year, the cost of putting on the talent contest increases by 10% of the previous year's cost.
In summer 2014 the cost was £6600.

Calculate the cost of putting on the summer 2017 talent contest.
You must show all your working. [3]

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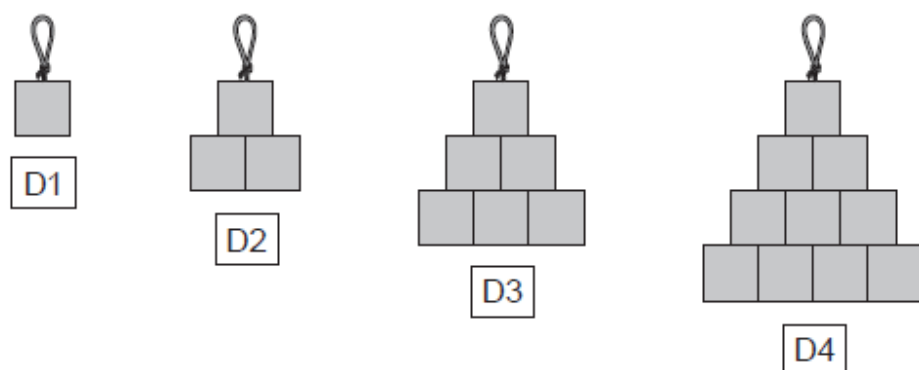
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Ollie and Josef both have jobs in a workshop that makes decorations.

They make decorations using small squares of stained glass.

(a) Ollie has made the following decorations.



He labels the first decoration D1.

He labels the next 3 decorations in order, D2, D3 and D4.

He continues to make decorations and labels following this pattern.

- (i) After making decoration D5, Ollie notices he only has 10 small squares of stained glass left.

How many **more** squares of stained glass will Ollie need to make decoration D6? [2]

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- (ii) Ollie uses a rule to work out how many squares he needs for each decoration. He states that to make decoration D10 he would need 55 squares. Is Ollie correct?

You must show your working.

[1]

- (a) A standard piece of A4 paper is usually 0.08 mm thick.
What is 0.08 mm written in metres in standard form?
Circle your answer.

[1]

8×10^4

8×10^{-4}

8×10^{-3}

8×10^3

8×10^{-5}

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- (b) A piece of card is 1 mm thick.
A stack of these pieces of card is 3×10^{-2} metres high.

- (i) Calculate how many pieces of card there are in the stack.

[2]

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- (ii) What assumption have you made in answering (b)(i)?

[1]

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Small bottle
300 ml for 66p



Medium bottle
400 ml for 92p



Large bottle
500 ml for £1.25

- (a) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

Roland is going to buy some orange juice for a party.
Which size bottle of orange juice offers the best value for money?
You must show your working.

[3 + 2 OCW]

- (b) Galina needs to buy **exactly** 800 ml of orange juice.
Which is the best option for Galina?
You must show your working and consider all options.
You must give a reason for your choice.

[3]

(a) Students are taking tests in English and Welsh.
The English test is marked out of 80.
The Welsh test is marked out of 70.

- (i) Dyfed scores 35 in his English test.
Estimate Dyfed's score as a percentage.
Circle your answer.

[1]

4%

20%

23%

44%

51%

- (ii) Liam scores 22 in his Welsh test.
Estimate Liam's score as a percentage.
Circle your answer.

[1]

0.3%

3%

22%

31%

40%

Marcin has a market stall to sell his printed T-shirts.

It costs him:

- £250 to buy 100 **plain** T-shirts,
- 50p to print a design on each T-shirt.

Marcin sells his printed T-shirts for £4.00 each.

At the start of the week:

- His bank account balance is £820.
- Marcin has 100 printed T-shirts ready to sell.
- He has already paid for these printed T-shirts.

During the week:

- Marcin sells his stock of 100 T-shirts.
- He pays all the money he takes from selling T-shirts into his bank account.
- He buys and prints another 400 T-shirts.
- Marcin **does not** sell any of these 400 T-shirts.

How much will Marcin have in his bank account at the end of this week?

You must show all your working.

[4]

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(a)



Lotty and Rafael decide to enter a prize draw.

They agree to share any money they win in the ratio 2 : 3 respectively.

After winning a total of £2000, they think again and decide that Lotty's share should be increased by 30%.

- (i) Rafael thinks that his share will be reduced by 30%.

Without any calculation, explain why Rafael's thinking is incorrect.

[1]

- (ii) Calculate the amount of money Lotty wins after the decision is made to increase her share.

[4]

- (iii) Find the ratio that is now used to share the money between Lotty and Rafael.
Express your answer in its simplest form.

[3]

Lotty's winnings : Rafael's winnings = :

- (b) In another prize draw, it was planned to give £5000 as the first prize.
To make it more popular, the organisers decide to increase this first prize by 26%.

The most efficient method of calculating the amount of the increased first prize is

$$1.26 \times 5000.$$

The second prize was planned to be £3000, but it is now decided to decrease this prize by 6%.

Write down the most efficient method of calculating the amount of the decreased second prize.

You are not expected to work out the answer.

[1]

Number

Numeracy Calculator Past Paper Questions

Luigi lives in south Wales.

Rosina lives in west Wales.

For each of the first 65 days of 2017, they recorded whether or not it rained.

Luigi recorded that it rained on 28 of these days.

Rosina recorded that it rained on 40% of these 65 days.

Luigi says,

'For the first 65 days of 2017, there were more days with rain where I live than where Rosina lives.'

Is Luigi correct?

You must show all your working.

[3]

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- (a) Gustav is making some scones for his sister's birthday party.

Recipe to make 12 scones

450g self raising flour
2 teaspoons of baking powder
75g butter
50g caster sugar
2 eggs
225ml milk

Bake at 428°F for 10 to 15 minutes

- (i) How much self raising flour will Gustav need to make 30 scones?
Circle your answer.

[1]

900g

1000g

1100g

1125g

1350g

- (ii) In the recipe, the temperature of the oven is given in degrees Fahrenheit, F .
The temperature gauge on Gustav's oven shows degrees Celsius, C .

The formula below is used to convert Fahrenheit into Celsius.

$$C = \frac{5F - 160}{9}$$

At what temperature should Gustav bake the scones?
Give your answer in degrees Celsius.

[2]

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Mali's scooter depreciated (decreased) in value by 24% in the **first** year.
In all further years, her scooter depreciated by 13% of its previous year's value.
She originally paid £850 for her scooter.
Calculate the value of Mali's scooter after 7 years. [3]

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After 7 years, the value of Mali's scooter was £

The television was reduced in the sale by 26% of its original price.
It cost Marta £710.40 in the sale.
What was the original price of the television? [2]

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Original price £

- (c) A television uses 1 unit of electricity every 10 hours.
A unit of electricity costs 9.8p.

- (i) Calculate the cost of having a television turned on for 24 hours.
Circle your answer.

[1]

£23.52

£2.35

40.83p

23.52p

2.45p

- (ii) On average, Marta watches 4 hours of television each day.
On average, how much **a week** does it cost her to watch television?
Circle your answer.

[1]

27.44p

£27.44

£39.20

39.2p

10.78p

- (a) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

Edmund needs carrots to make soup.
His two local supermarkets are *SuperM* and *FairMart*.

450 g of carrots cost 27p in *SuperM*.
The same variety of carrots cost 57p per kg in *FairMart*.



Edmund wants to buy carrots that are the best value for money.
Should he buy carrots from *SuperM* or from *FairMart*?
Give a reason for your answer.
You must show all your working.

[3 + 2 OCW]

(b) Edmund plans to use the recipe shown to make soup.

Carrot soup, serves 4 people

450g carrots

0.8 litres stock

4 tablespoons of cream

2 onions

He starts to write the recipe for serving 25 people.

Carrot soup to serve 25 people

..... g carrots

..... litres stock

..... tablespoons of cream

..... **whole** onions

Edmund does not want part of an onion left over.
Complete the recipe for Edmund.

[3]

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Ice skate hire charges

Hire any pair of ice skates for £3.25
PLUS
£2.40 for every hour or part of an hour hired*

*any minute or more into the next hour is
charged as 1 hour



- (a) Bryn returns his hired ice skates after 3 hours 38 minutes.
How much will the total charge be for hiring these ice skates?

[2]

- (b) Beth pays £8.05 to hire ice skates.
What is the minimum whole number of minutes that she could have hired the ice skates
for before returning them?

[3]

- (a) On 1st June, Delyth budgets for her next electricity bill. This bill will be for the months of June, July and August. Her bill will have to be paid at the beginning of September.

She knows:

- the standing charge is £8 **per month**,
- her meter reading on 1st June is 20 150 kWh,
- her estimate for her meter reading on 31st August is 20 950 kWh,
- her agreement states that electricity costs 23p per kWh,
- VAT at 5% is payable on the total of the standing charge and the cost of the electricity used.

Calculate how much she should budget each month so that she is able to pay her next electricity bill. [7]

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- (b) Delyth invested £500 in a saver bank account 20 years ago. She did not withdraw money or make any other payments into this account. The bank paid 2.2% compound interest per annum during the first 5 years. Compound interest at 1.6% per annum was paid for the remaining 15 years.

Delyth closes the account after 20 years.
How much money should she receive?

[4]

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Ceri and Paulo both sit the same mathematics test.
The test is marked out of 125.

Ceri scores 78 marks in the test.
Paulo's result is 64%.

Who has the higher result in this mathematics test?
You must show all your working.

[3]

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Barrels are used to store liquid.
Glass containers are filled with liquid from a barrel.

The table below gives the capacity of some glass containers and their traditional names.



- (a) Complete the table to give the number of bottles equivalent to all the traditional sizes.

[2]

Capacity in litres	Number of bottles	Traditional name
0.75	1	Bottle
1.5	2	Magnum
3	Jéroboam
4.5	Réhoboam
6	8	Methuselah
9	12	Salmanazar
12	Balthazar

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- (b) A barrel contains just enough liquid to fill 3 Salmanazars and 1 Magnum.
Which of the following amounts does the barrel hold?
Circle your answer.

[1]

4 bottles 28.5 bottles 10.5 bottles 36 bottles 38 bottles

- (c) A different barrel contains just enough liquid to fill 30 Magnums.
How many Salmanazars can be filled from this barrel?

[2]

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(a) $\frac{6}{11}$ of Jenna's friends have pets.

Of these friends with pets, $\frac{2}{3}$ of them have a dog.

Use this information to answer each of the following questions.

(i) Jenna has 33 friends.

How many of her friends have a pet?

[2]

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(ii) What fraction of Jenna's friends have a dog?

[2]

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(b) 120 people were surveyed.

They were each asked which is their favourite pet: dog, cat or fish.

The numbers who answered dog, cat and fish were in the ratio 63 : 39 : 18.

Express this ratio in its simplest terms.

[1]

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Arianna's pizzeria

All pizzas £8.80 each

Special offers

Buy 1 pizza, get 1 pizza free OR 35% off the price of every pizza

- (a) *In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.*

Lowri orders 3 pizzas.
She wants to pay the least amount possible.
Which offer should Lowri ask for?

Buy 1 pizza, get 1 pizza free

35% off the price of every pizza

You must give the total cost of each of the offers.
You must show all your working.

[5 + 2 OCW]

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- (b) Noah wants to order 10 pizzas.
Explain why 'buy 1 pizza, get 1 pizza free' would be the better of the 2 offers.
Do not use any calculations.

[1]

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(a) Rowan lives in New Zealand.

Rowan wants to post a number of packages.
He has 10 of each of the following stamps.



1 New Zealand dollar (\$) = 100 cents (100c)

Rowan wants to:

- put the correct postage on each package,
- use as **few** of his stamps as possible.

Select the stamps he needs to post each of the following packages.

(i) Documents, postage \$3.60

[2]

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(ii) Birthday present, postage \$7.40

[2]

- (b) Rowan is coming to Wales on holiday.
The conversion rate at the exchange shop is $\$1 = \pounds 0.53$.
The exchange shop only has $\pounds 10$ and $\pounds 20$ notes.

Rowan only has \$550 saved.
He wants to exchange as close to \$550 as possible.
He asks for as few notes as possible.

Calculate:

- how many of each British note Rowan gets,
- how much he pays for his currency, correct to the nearest cent.

You must show all your working.

[6]

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Loretta is paid in euros.
She is checking her tax bill for last year.

The tax rates last year were as follows:

- No tax on the first €3500 of earnings
- Earnings in excess of €3500 and up to €10 500: taxed at a rate of 25%
- Earnings above €10 500: taxed at a rate of 35%

Last year, Loretta’s total earnings before tax were €34 500.

How much tax did Loretta pay in total?
You must show all your working.

[6]

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Ewan is going on holiday to India.
He has saved £450 to exchange for Indian rupees.

- (a) The exchange rate on the internet last week was £1 = 99.40 rupees.
Had Ewan been going on holiday last week, how many rupees could he have bought? [2]

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- (b) Ewan exchanges his money on arrival in India.
The exchange rate is now £1 = 99.72 rupees.

The exchange bureau only has 500 rupee notes.
Ewan wants to buy as many rupees as possible with his £450 savings.

How much of his £450 will Ewan spend buying rupees?
Give your answer correct to the nearest penny.
You must show all your working.

[4]

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- (a) In this part of the question, you will be assessed on the quality of your organisation, communication and accuracy in writing.

Railcard for 16 to 25 year olds

£30 for a year

Get $\frac{1}{3}$ off all your rail travel

Nerys and Eleri are sisters.

Nerys is 22 years old and Eleri is 27 years old.

The two sisters live in Holyhead.

Their aunt lives in Milford Haven.

They travel by train to visit their aunt 3 times a year.

Nerys buys a 16-25 Railcard to use for these journeys.

They buy single rail tickets for each journey.

The cost of a **single** rail ticket from Holyhead to Milford Haven is £84.50.

The journey home from Milford Haven also costs £84.50 per ticket.

In a year, how much less does Nerys pay than Eleri for the journeys to Milford Haven and back?

You must show all your working.

[5 + 2 OCW]

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- (b) Cristiano is 22 years old.
He sometimes travels from Rhyl to Llandudno Junction by train.
The cost of a single rail ticket from Rhyl to Llandudno Junction is £7.80.

Nerys advises Cristiano to buy a Railcard.
Cristiano says,



It is not worth paying £30 for the Railcard.

How many times in a year would Cristiano have to travel to make it worthwhile for him to buy a Railcard? [3]

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- (a) The total area of all the woodlands in Wales is **303 000 hectares**.

Individual woodlands that have an area of 2000 hectares or more make up 76% of the total area of all the woodlands in Wales.

Complete the following statement.

'Woodlands with areas of **less than** 2000 hectares in Wales cover a total area of

..... hectares.'

[3]

- (b) The price of softwood changes each year.
The price has increased by 6% per annum for each of the last **5 years**.
Before this, the price had decreased by 2% per annum.
Seven years ago the price of softwood was £34 per m³.

Calculate the current price of softwood.

[3]

