



## **Maths Questions By Topic:**

### **Number**

### **Edexcel GCSE (Foundation)**

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# Table Of Contents

## New Spec

Paper 1 .....	Page 1
Paper 2 .....	Page 49
Paper 3 .....	Page 96

## Old Spec A (Linear)

Paper 1 .....	Page 141
Paper 2 .....	Page 215

1 Write  $\frac{3}{10}$  as a percentage.

.....%

**(Total for Question 1 is 1 mark)**

---

2 Write the following numbers in order of size.  
Start with the smallest number.

8      -7      -10      1      0      -2

.....  
**(Total for Question 2 is 1 mark)**

---

3 Write  $\frac{9}{100}$  as a decimal.

.....  
**(Total for Question 3 is 1 mark)**

---

4 Write 327 correct to the nearest ten.

.....  
**(Total for Question 4 is 1 mark)**

---

5 Write down the value of  $7^2$

.....  
**(Total for Question 5 is 1 mark)**

---

6 £42 is shared equally between 3 friends.

How much does each friend get?

£.....

**(Total for Question 6 is 2 marks)**

---

- 7 Danny buys,  
1 loaf of bread for £1.20  
1 bottle of milk for 70p  
2 packets of cheese for £2.30 each packet

Danny pays with a £10 note.

He says,  
“I should get £3.30 change.”

Is Danny correct?  
You must show how you get your answer.

---

(Total for Question 7 is 3 marks)

- 8 Rachel records the temperature in her garden at noon each day.

On Monday, the temperature was  $5^{\circ}\text{C}$ .

On Tuesday, the temperature was  $10^{\circ}$  less than the temperature on Monday.

On Wednesday, the temperature was  $3^{\circ}$  greater than the temperature on Tuesday.

Find the difference between the temperature on Monday and the temperature on Wednesday.  
You must show all your working.

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

---

(Total for Question 8 is 2 marks)

9 (a) Work out  $3.67 \times 4.2$

.....  
\*5+

(b) Work out  $59.84 \div 1.6$

.....  
(3)

**(Total for Question 9 is 6 marks)**

---

10 Work out  $4\frac{1}{5} - 2\frac{2}{3}$

Give your answer as a mixed number.

.....  
**(Total for Question 10 is 3 marks)**

11 Freddie measured the length of a pencil as 7.2 cm correct to 1 decimal place.

Complete the error interval for the length,  $p$  cm, of the pencil.

.....  $\leq p <$  .....

**(Total for Question 11 is 2 marks)**

- 12** Write the following numbers in order of size.  
Start with the smallest number.

0.32      0.4      0.35      0.309

.....  
**(Total for Question 12 is 1 mark)**

- 13** Here is a list of numbers.

5      11      18      22      29

From the list, write down a multiple of 3

.....  
**(Total for Question 13 is 1 mark)**

- 14** Write 4.666 correct to the nearest whole number.

.....  
**(Total for Question 14 is 1 mark)**

- 15** Write  $\frac{3}{4}$  as a decimal.

.....  
**(Total for Question 15 is 1 mark)**

- 16** Write down the value of the 7 in the number 8765

.....  
**(Total for Question 16 is 1 mark)**



17 Jenny has 12 marbles.

$\frac{1}{4}$  of these 12 marbles are large.

The rest of these 12 marbles are small.

Each large marble has a weight of 70 grams.

Each small marble has a weight of 50 grams.

Work out the total weight of the 12 marbles.

..... grams

**(Total for Question 17 is 4 marks)**

---

**18** Jamil makes a drink by mixing  
1 part of orange squash with 9 parts of water.

He uses 750 millilitres of orange squash.

Jamil is going to put the drink he has mixed into 1 litre bottles.

Work out the greatest number of 1 litre bottles that Jamil can completely fill.

.....  
**(Total for Question 18 is 3 marks)**

**19** Work out an estimate for  $\frac{790 \times 289}{49}$

.....  
**(Total for Question 19 is 3 marks)**

20 Show that

$$2\frac{1}{3} \times 3\frac{3}{4} = 8\frac{3}{4}$$

---

(Total for Question 20 is 3 marks)

21 Write these numbers in order of size.  
Start with the smallest number.

$6.72 \times 10^5$

$67.2 \times 10^{-4}$

$672 \times 10^4$

$0.000672$

---

(Total for Question 21 is 2 marks)

22 Write down the value of the 7 in the number 1074

.....

**(Total for Question 22 is 1 mark)**

23 Write 4.58 correct to 1 decimal place.

.....

**(Total for Question 23 is 1 mark)**

24 Work out  $31.7 \times 100$

.....

**(Total for Question 24 is 1 mark)**

25 Write the fraction  $\frac{28}{70}$  in its simplest form.

.....

**(Total for Question 25 is 1 mark)**

26 Prasha has five blocks of wood.

The total weight of all five blocks of wood is 3 kilograms.  
4 of the blocks of wood each have a weight of 650 grams.

Work out the weight, in grams, of the other block of wood.

..... grams

**(Total for Question 26 is 3 marks)**

27 Mason throws a coin 3 times.

The outcome of each throw is either Heads or Tails.

List all the possible outcomes of the 3 throws.

.....

.....

.....

**(Total for Question 27 is 2 marks)**

**28** Rehan is on holiday in the USA.

He has \$200 to spend on clothes.

Rehan buys

- 1 pair of trainers costing \$60
- 3 T-shirts costing \$25 each.

He also wants to buy a jacket costing \$80

- (a) Has Rehan got enough money to buy the jacket?  
You must show how you get your answer.

(3)

The trainers cost \$60

The exchange rate is  $\$1 = \pounds 0.749$

Rehan says,

“The trainers cost less than  $\pounds 40$ ”

Rehan is wrong.

- (b) Using a suitable approximation, show working to explain why.

(2)

**(Total for Question 28 is 5 marks)**

**29** Work out  $23 \times 15$

.....  
**(Total for Question 29 is 2 marks)**

---

**30** Find the Lowest Common Multiple (LCM) of 108 and 120

.....  
**(Total for Question 30 is 3 marks)**

31 Work out  $1\frac{3}{4} \times 1\frac{1}{3}$

Give your answer as a mixed number.

.....  
**(Total for Question 31 is 3 marks)**

---

32 Work out  $10 \times (3 + 5)$

.....  
**(Total for Question 32 is 1 mark)**

---

33 Write down a prime number that is between 20 and 30

.....  
**(Total for Question 33 is 1 mark)**

---



34 Find the number that is exactly halfway between 7 and 15

.....  
(Total for Question 34 is 1 mark)

35 Harry is planning a holiday for 4 people for 7 days.

J gtg"ctg"vj g"equu"ht"vj g"j qrkf c{ "ht"gcej "r gtup0

Travel	£150
Hotel	£50 for each day
Spending money	£250

Work out the total cost of the holiday for 4 people for 7 days.

£.....

(Total for Question 35 is 4 marks)

- 36** Write the following fractions in order of size.  
Start with the smallest fraction.

$$\frac{1}{3} \quad \frac{3}{4} \quad \frac{1}{4} \quad \frac{7}{12} \quad \frac{1}{2}$$

---

**(Total for Question 36 is 2 marks)**

- 37** Work out  $74 \times 58$

---

**(Total for Question 37 is 2 marks)**

38 (a) Work out  $\frac{1}{5}$  of 70

.....  
\*3+

Fiona has to work out the exact value of  $48 \div \frac{1}{2}$   
She writes

$$48 \div \frac{1}{2} = 24$$

Fiona's reason is,

“There are 2 halves in 1, so there will be 24 halves in 48”

(b) Explain what is wrong with Fiona's reason.

.....  
.....  
.....  
(1)

(Total for Question 38 is 2 marks)

39 (a) Write down the value of  $\sqrt{64}$

.....  
\*3+

(b) Work out the value of  $5^3$

.....  
(1)

(Total for Question 39 is 2 marks)

40 (a) Work out  $\frac{2}{3} - \frac{1}{5}$

.....  
\*4+

(b) Work out  $\frac{2}{3} \times \frac{3}{4}$

Give your answer as a fraction in its simplest form.

.....  
(2)

**(Total for Question 40 is 4 marks)**

---

41 Find the highest common factor (HCF) of 72 and 90

.....  
**(Total for Question 41 is 2 marks)**

- 42 Write the following numbers in order of size.  
Start with the smallest number.

0.4      0.02      0.37      0.152      0.2

.....  
(Total for Question 42 is 1 mark)

- 43 Here is a list of numbers.

3      5      7      12      15      18      20

From the list, write down a factor of 10

.....  
(Total for Question 43 is 1 mark)

- 44 Write 7829 to the nearest 1000

.....  
(Total for Question 44 is 1 mark)

- 67" \*c+"Y qtnlqw" "" 5 X"7"- '9

.....  
\*3+

- (b) Work out  $2^3$

.....  
\*3+

- (c) Write brackets ( ) in this statement to make it correct.

$$7 \times 2 + 3 = 35$$

.....  
(1)

(Total for Question 45 is 3 marks)

46 Sue has 2 cats.

Each cat eats  $\frac{1}{4}$  of a tin of cat food each day.

Sue buys 8 tins of cat food.

Has Sue bought enough cat food to feed her 2 cats for 14 days?

You must show how you get your answer.

---

**(Total for Question 46 is 3 marks)**

47 Write down two prime numbers that have a sum of 32

..... , .....

**(Total for Question 47 is 2 marks)**

48 Here are some fractions.

$$\frac{9}{12} \quad \frac{6}{8} \quad \frac{18}{24} \quad \frac{10}{16} \quad \frac{15}{20}$$

Qpg"qh'vj gug"htcevkpu"ku'pqv'gs wxcrp v'vq"  $\frac{3}{4}$

(a) Which fraction?

(b) Work out  $\frac{1}{12} + \frac{5}{6}$

.....  
\*3+

.....  
(2)

(Total for Question 48 is 3 marks)

49 Work out the value of  $\frac{3^7 \times 3^{-2}}{3^3}$

.....  
(Total for Question 49 is 2 marks)

**50** A plane travels at a speed of 213 miles per hour.

(a) Work out an estimate for the number of seconds the plane takes to travel 1 mile.

..... seconds

\*5+

(b) Is your answer to part (a) an underestimate or an overestimate?  
Give a reason for your answer.

.....  
.....  
(1)

**(Total for Question 50 is 4 marks)**



51 Write 6324 correct to the nearest thousand.

.....  
(Total for Question 51 is 1 mark)

52 (a) Write the following numbers in order of size.  
Start with the smallest number.

-6                  6                  -5                  0                  12

.....  
\*3+

(b) Write the following numbers in order of size.  
Start with the smallest number.

0.078                  0.78                  0.87                  0.708

.....  
(1)

(Total for Question 52 is 2 marks)

53 Here is a list of four fractions.

$\frac{4}{16}$                    $\frac{2}{8}$                    $\frac{15}{60}$                    $\frac{3}{9}$

Qpg"qh'yj gug"ltcevkpu"ku"pqv'gs wlxcrp v'q'" $\frac{3}{6}$ "

Y tkg"f qy p"y ku"ltcevkp0

.....  
(Total for Question 53 is 1 mark)

54 Write down the first even multiple of 7

.....

**(Total for Question 54 is 1 mark)**

55 Tim and three friends go on holiday together for a week.

The 4 friends will share the costs of the holiday equally.

Here are the costs of the holiday.

£1280 for 4 return plane tickets

£640 for the villa

£220 for hire of a car for the week

Work out how much Tim has to pay for his share of the costs.

£ .....

**(Total for Question 55 is 3 marks)**

56" Y tkg'f qy p"cp"gzco r rg"v'uj qy "j cv'gcej "qh'j g'hqmy lpi "y q'ucvgo gpw'ku'pqv'eqttge0

(a) The factors of an even number are always even.

.....  
\*3+

(b) All the digits in odd numbers are odd.

.....  
(1)

**(Total for Question 56 is 2 marks)**

57 A piece of wire is 240 cm long.

Peter cuts two 45 cm lengths off the wire.

He then cuts the rest of the wire into as many 40 cm lengths as possible.

Work out how many 40 cm lengths of wire Peter cuts.

.....  
**(Total for Question 57 is 3 marks)**

58 Gavin, Harry and Isabel each earn the same monthly salary.

Each month,

Isabel saves  $\frac{1}{4}$  of her salary and spends  $\frac{3}{4}$  of her salary.

Harry spends  $\frac{3}{4}$  of his salary and saves  $\frac{1}{4}$  of his salary.

the amount of salary Isabel saves : the amount of salary she spends = 3 : 7

Work out who saves the most of their salary each month.

You must show how you get your answer.

---

(Total for Question 58 is 4 marks)

59 (a) Work out  $2\frac{1}{7} + 1\frac{1}{4}$

.....  
\*4+

(b) Work out  $1\frac{1}{5} \div \frac{3}{4}$

Give your answer as a mixed number in its simplest form.

.....  
\*4+

**(Total for Question 59 is 4 marks)**

---

**60** Renee buys 5 kg of sweets to sell.  
She pays £10 for the sweets.

Renee puts all the sweets into bags.  
She puts 250 g of sweets into each bag.  
She sells each bag of sweets for 65p.

Renee sells all the bags of sweets.

Work out her percentage profit.

.....%

**(Total for Question 60 is 4 marks)**

61 A cycle race across America is 3069.25 miles in length.

Juan knows his average speed for his previous races is 15.12 miles per hour.  
For the next race across America he will cycle for 8 hours per day.

(a) Estimate how many days Juan will take to complete the race.

.....  
\*5+

Juan trains for the race.  
The average speed he can cycle at increases.  
It is now 16.27 miles per hour.

(b) How does this affect your answer to part (a)?

.....  
.....  
(1)

**(Total for Question 61 is 4 marks)**

62 Work out  $2 + 7 \times 10$

(Total for Question 62 is 1 mark)

63 Here are four numbers.

-9                      -2                      2                      9

Write one of these numbers in each box to make a correct calculation.

$$\boxed{\phantom{000}} + \boxed{\phantom{000}} = -7$$

(Total for Question 63 is 1 mark)

86" Lces wky cpw'q'y qtn'qw" "" 56: 2"ö"7

She knows that  $3480 \div 10 = 348$

Jacqui writes  $3480 \div 5 = 174$

because  $10 \div 5 = 2$

and  $348 \div 2 = 174$

What mistake did Jacqui make in her method?

(Total for Question 64 is 1 mark)



65 Here are two fractions.

$$\frac{7}{5}$$

$$\frac{5}{7}$$

Work out which of the fractions is closer to 1  
You must show all your working.

---

(Total for Question 65 is 3 marks)

66 Berenika wants to buy 35 T-shirts.

Each T-shirt costs £5.80

Berenika does the calculation  $40 \times 6 = 240$  to estimate the cost of 35 T-shirts.

Explain how Berenika's calculation shows the actual cost will be less than £240

.....  
.....  
\*3+

---

(Total for Question 66 is 1 mark)

67 Ami and Josh use a calculator to work out  $\frac{595}{4.08^2 + 5.3}$

Ami's answer is 27.1115

Josh's answer is 271.115

One of these answers is correct.

Use approximations to find out which answer is correct.

---

(Total for Question 67 is 3 marks)

68 Work out  $\frac{0.06 \times 0.0003}{0.01}$

Give your answer in standard form.

---

(Total for Question 68 is 3 marks)

69 (a) Work out  $\frac{2}{5} + \frac{1}{4}$

.....  
\*4+

(b) Write down the value of  $2^{-3}$

.....  
(1)

**(Total for Question 69 is 3 marks)**

---

70 Write 36 as a product of its prime factors.

.....  
**(Total for Question 70 is 2 marks)**

---

71 Work out the value of  $2^4$

.....

---

**(Total for Question 71 is 1 mark)**

72 Write 7.26451 correct to 3 decimal places.

.....

---

**(Total for Question 72 is 1 mark)**

73 Work out 60% of 70

.....

---

**(Total for Question 73 is 2 marks)**

74 Fahima buys

2 packets of bread rolls costing £1.50 for each packet

1 bottle of ketchup costing £1.60

3 packets of sausages

Fahima pays with a £10 note.

She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?

You must show how you get your answer.

---

(Total for Question 74 is 3 marks)

75 (a) Work out  $\frac{5}{8} \times \frac{3}{4}$

.....  
\*3+

(b) Work out  $\frac{2}{3} - \frac{1}{4}$

.....  
(2)

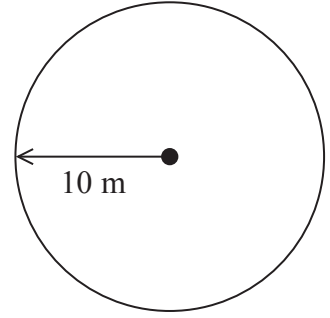
---

(Total for Question 75 is 3 marks)

76 Balena has a garden in the shape of a circle of radius 10 m.  
 He is going to cover the garden with grass seed to make a lawn.

Grass seed is sold in boxes.  
 Each box of grass seed will cover 46 m<sup>2</sup> of garden.

Balena wants to cover all the garden with grass seed.



(a) Work out an estimate for the number of boxes of grass seed Balena needs.  
 You must show your working.

.....  
 \*6+

(b) Is your estimate for part (a) an underestimate or an overestimate?  
 Give a reason for your answer.

.....  
 .....  
 .....  
 .....  
 .....  
 (1)

**(Total for Question 76 is 5 marks)**

77 Express 56 as the product of its prime factors.

.....  
**(Total for Question 77 is 2 marks)**

78 Work out  $54.6 \times 4.3$

.....  
**(Total for Question 78 is 3 marks)**

**79** Write the following numbers in order of size.  
Start with the smallest number.

0.61

0.1

0.16

0.106

.....  
**(Total for Question 79 is 1 mark)**

---

**80** Write 0.037 as a fraction.

.....  
**(Total for Question 80 is 1 mark)**

---

**81** Write down the 20th odd number.

.....  
**(Total for Question 81 is 1 mark)**

---

**82** Write down all the factors of 20

.....  
**(Total for Question 82 is 2 marks)**

---



**83** Tanya needs to buy chocolate bars for all the children in Year 7  
Each of the 130 children get one chocolate bar.

There are 8 chocolate bars in each packet.

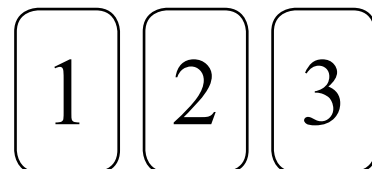
Work out the least number of packets of chocolate bars that Tanya needs to buy.

.....  
**(Total for Question 83 is 3 marks)**

**84** Work out 15% of 80

.....  
**(Total for Question 84 is 2 marks)**

**85** Sally has three tiles.  
Each tile has a different number on it.  
Sally puts the three tiles down to make a number.  
Each number is made with all three tiles.



How many different numbers can Sally make?

.....  
**(Total for Question 85 is 2 marks)**

86 Paul organised an event for a charity.

Each ticket for the event cost £19.95  
Paul sold 395 tickets.

Paul paid costs of £6000  
He gave all money left to the charity.

(a) Work out an estimate for the amount of money Paul gave to the charity.

£.....  
\*5+

(b) Is your answer to (a) an underestimate or an overestimate?  
Give a reason for your answer.

.....  
.....  
(1)

**(Total for Question 86 is 4 marks)**

87 (a) Work out  $\frac{2}{7} + \frac{1}{5}$

.....  
\*4+

(b) Work out  $1\frac{2}{3} \div \frac{3}{4}$

.....  
(2)

**(Total for Question 87 is 4 marks)**

---

88 Work out  $6.34 \times 5.2$

.....  
**(Total for Question 88 is 3 marks)**

---

89 Write 4.4354 correct to 2 decimal places.

.....

(Total for Question 89 is 1 mark)

---

90 Write 0.9 as a percentage.

.....%

(Total for Question 90 is 1 mark)

---

91 Work out  $(-3)^3$

.....

(Total for Question 91 is 1 mark)

---

92 Here are four cards.  
There is a number on each card.

4

5

2

1

(a) Write down the largest 4-digit even number that can be made using each card only once.

.....  
(2)

(b) Write down all the 2-digit numbers that can be made using these cards.

(2)

(Total for Question 92 is 4 marks)

---

93 Bernard says,

“When you halve a whole number that ends in 8, you always get a number that ends in 4”

(a) Write down an example to show that Bernard is wrong.

.....  
(1)

Alice says,

“Because 7 and 17 are both prime numbers, all whole numbers that end in 7 are prime numbers.”

(b) Is Alice correct?

You must give a reason with your answer.

.....  
.....  
(1)

**(Total for Question 93 is 2 marks)**

94 Work out  $247 \times 63$

.....  
**(Total for Question 94 is 3 marks)**

**95** A unit of gas costs 4.2 pence.

On average Ria uses 50.1 units of gas a week.  
She pays for the gas she uses in 13 weeks.

(a) Work out an estimate for the amount Ria pays.

.....  
(3)

(b) Is your estimate to part (a) an underestimate or an overestimate?  
Give a reason for your answer.

.....  
.....  
(1)

**(Total for Question 95 is 4 marks)**

96 Find 10% of £320

£.....

(Total for Question 96 is 1 mark)

97 (a) Work out  $84 \div 3$

.....  
\*3+

(b) Work out  $0.17 \times 6000$

.....  
\*3+

(c) Work out  $(-2)^3$

.....  
(1)

(Total for Question 97 is 3 marks)

98 8 identical pens cost £12  
Work out the cost of 10 of these pens.

£.....

(Total for Question 98 is 2 marks)



99 Here are five fractions.

$$\frac{2}{8} \quad \frac{10}{40} \quad \frac{12}{48} \quad \frac{5}{24} \quad \frac{20}{80}$$

Qpg"qh'y gug"ltcevkpu"ku'pqv'gs wkxcrgpv"vq"  $\frac{3}{6}$   
\*c-"Y tkg"f qy p"j ku"ltcevkp0

(b) Work out  $\frac{2}{7} + \frac{1}{14}$

.....  
\*3+

(c) Work out  $\frac{4}{5} \div \frac{3}{10}$

Give your answer in its simplest form.

.....  
\*4+

.....  
(2)

(Total for Question 99 is 5 marks)

100 Write down three different multiples of 4 that add up to 40

.....  
(Total for Question 100 is 2 marks)

**101** Write 504 as a product of powers of its prime factors.

.....  
**(Total for Question 101 is 3 marks)**

---

**102** Write the following numbers in order of size.  
Start with the smallest number.

1.02      0.12      1.20      0.21

.....  
(Total for Question 102 is 1 mark)

**103** Here is a list of whole numbers from 21 to 30

21      22      23      24      25

(a) From the list, write down a square number.

.....  
\*3+

(b) From the list, write down a multiple of 8

.....  
(1)

(Total for Question 103 is 2 marks)

**326** C"dcngt"j cu"vj tgg"dci u"qh"mqwt."C."D"cpf "E0

Dci "C"cpf "dci "D"eqpvk"vj g"uco g"co qwpv"qh"mqwt0  
Dci "E"eqpvkpu"; 62i "qh"mqwt0

Kp"vj g"vj tgg"dci u."vj gtg"ku"e"qvcd"qh"4722i "qh"mqwt0

Y qtnlqw"vj g"co qwpv"qh"mqwt"kp"dci "C0

..... g

(Total for Question 104 is 3 marks)

**105** Alec needs to work out the value of  $2 + 3 \times 4$

He writes

$$2 + 3 = 5 \text{ and } 5 \times 4 = 20, \text{ so } 2 + 3 \times 4 = 20$$

Alec is wrong.  
Explain why.

.....

.....

.....

**(Total for Question 105 is 1 mark)**

**106** (a) Work out  $\sqrt{\frac{13.82}{4.06}}$

Write down all the figures on your calculator display.

.....

\*4+

(b) Give your answer to part (a) correct to 2 decimal places.

.....

(1)

**(Total for Question 106 is 3 marks)**

**107** Write the following fractions in order of size.  
Start with the smallest fraction.

$$\frac{5}{8} \quad \frac{2}{3} \quad \frac{4}{9} \quad \frac{3}{5}$$

---

**(Total for Question 107 is 2 marks)**

---

**108** Rachel, Samina and Tom share £600 between them.

Rachel gets  $\frac{2}{5}$  of the £600

Samina gets  $\frac{1}{4}$  of the money that is left over.

Tom gets the rest of the money.

Tom says,

“I would have got more money if we had shared the £600 equally between us.”

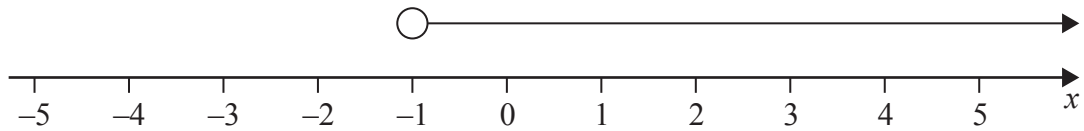
Is Tom correct?

You must show how you get your answer.

---

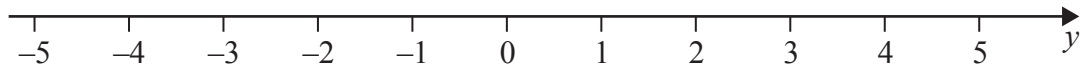
**(Total for Question 108 is 4 marks)**

109 (a) Write down the inequality shown on this number line.



.....  
\*3+

(b) On the number line below, show the inequality  $-3 \leq y < 4$



(2)

(Total for Question 109 is 3 marks)

110 Write 0.37 as a fraction.

.....  
(Total for Question 110 is 1 mark)

111 Write 29381 correct to the nearest 1000

.....  
(Total for Question 111 is 1 mark)

112 Here is a list of numbers.

3    4    9    18    27    30    36

From the numbers in the list, write down a cube number.

.....  
(Total for Question 112 is 1 mark)

113 Lucy uses a code to open a lock.

The code is a letter followed by a 2-digit number.

The letter is L or U.

The number is a prime number between 20 and 30

Write down all the possibilities for Lucy's code.

.....  
.....  
.....  
(Total for Question 113 is 2 marks)



**114** A machine fills bags with sweets.

There are 4275 sweets.

There are 28 sweets in each full bag.

The machine fills as many bags as possible.

How many sweets are left?

---

(Total for Question 114 is 3 marks)

---

**115** An exam has two papers, Paper 1 and Paper 2

Paper 1 has 60 marks.

Paper 2 has 90 marks.

The pass mark is  $\frac{2}{3}$  of the total number of marks.

Danielle gets 70% of the marks for Paper 1

How many of the marks for Paper 2 must Danielle get in order to get the pass mark?

---

**(Total for Question 115 is 4 marks)**

---

**116** (a) Write 84 as a product of its prime factors.

.....  
\*4+

(b) Find the lowest common multiple (LCM) of 60 and 84

.....  
(2)

**(Total for Question 116 is 4 marks)**

---

**117** Write these numbers in order of size.  
Start with the smallest number.

8    -4    1    -7    -2

.....  
**(Total for Question 117 is 1 mark)**

---

**118** Write the number 8375 correct to the nearest thousand.

.....  
**(Total for Question 118 is 1 mark)**

---

**119** Find the value of  $\sqrt{17.64}$

.....  
**(Total for Question 119 is 1 mark)**

---

**120** Find the value of  $6^5$

.....  
**(Total for Question 120 is 1 mark)**

---

**121** There are 14 rows of seats in a cinema.  
There are 15 seats in each row.

A film was shown in the cinema on Saturday.  
Each ticket for the film cost £6.50

The tickets that were sold cost a total of £1274

How many tickets were **not** sold?

.....  
**(Total for Question 121 is 3 marks)**

---

**122** Here is the charge at a car park in Spain.

**Car park**  
0.024 euros per minute

Jon parked his car in this car park.

Jon drove into the car park at 10 45

When he drove out of the car park he had to pay 8.40 euros.

At what time did Jon drive out of the car park?

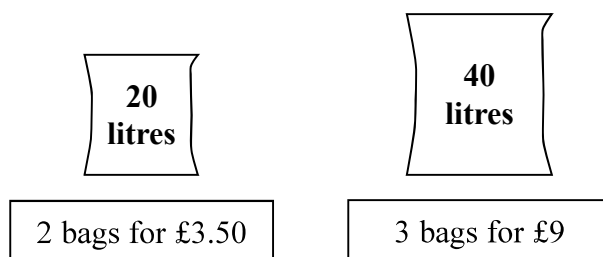
.....  
**(Total for Question 122 is 3 marks)**

---

**123** Find the number that is exactly halfway between  $\frac{1}{10}$  and  $\frac{3}{5}$

.....  
**(Total for Question 123 is 2 marks)**

- 124** A shop sells compost in 20 litre bags and in 40 litre bags.  
One day the shop had two special offers for the compost.



Which offer is the better value for money?  
You must show how you get your answer.

---

**(Total for Question 124 is 3 marks)**

- 125** The length of a pencil is 128 mm correct to the nearest millimetre.

Complete the error interval for the length of the pencil.

..... mm  $\leq$  length  $<$  ..... mm

**(Total for Question 125 is 2 marks)**

---

**126** Work out  $(3.42 \times 10^{-7}) \div (7.5 \times 10^{-6})$   
Give your answer in standard form.

.....  
**(Total for Question 126 is 2 marks)**

---



127 Write 0.75 as a fraction.

.....  
(Total for Question 127 is 1 mark)

128 Write the following numbers in order of size.  
Start with the smallest number.

-3      4      0      -1      2

.....  
(Total for Question 128 is 1 mark)

129 Write down two factors of 15

.....  
(Total for Question 129 is 1 mark)

130 Write the number two million in figures.

.....  
(Total for Question 130 is 1 mark)

**131** Dave goes into a cafe and buys 2 cups of coffee and a piece of cake.

Each cup of coffee costs £2.75

The cake costs £2.90

Dave pays with a £10 note.

He thinks he will get more than £1.50 in change.

Is Dave correct?

You must show how you get your answer.

---

**(Total for Question 131 is 3 marks)**

132 Here are three symbols.



Write one of these symbols in each box to make four true statements.

$14 \quad \square \quad 21$

$4 + 7 \quad \square \quad 103 - 92$

$2^2 \quad \square \quad 2 \times 2$

$-3 \quad \square \quad -5$

---

(Total for Question 132 is 2 marks)

133 Here is part of a train timetable.

Dtki j vqp	07 22	07 29	07 32
Nqpf qp	09 00	08 32	08 48

Graham gets to the station in Brighton at 07 15

(a) Work out how many minutes he has to wait until 07 22

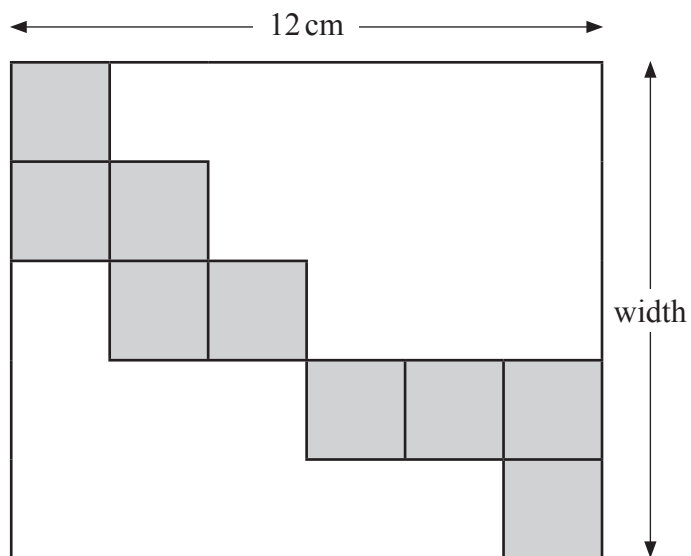
..... minutes  
\*3+

(b) Work out how long it will take the 07 22 train to get to London.

.....  
(2)

(Total for Question 133 is 3 marks)

134 The diagram shows nine identical squares inside a rectangle.



The length of the rectangle is 12 cm.

Work out the width of the rectangle.

.....cm

**(Total for Question 134 is 3 marks)**

**135** Sally used her calculator to work out the value of a number  $y$ .

The answer on her calculator display began

8.3

Complete the error interval for  $y$ .

.....  $\leq y <$  .....

**(Total for Question 135 is 2 marks)**

---

**136** (a) Write 0.00562 in standard form.

.....  
\*3+

(b) Write  $1.452 \times 10^3$  as an ordinary number.

.....  
(1)

**(Total for Question 136 is 2 marks)**

---

**137** Write down the value of the 4 in the number 542.3

.....  
**(Total for Question 137 is 1 mark)**

---

**138** Write down a square number that is also an odd number.

.....  
**(Total for Question 138 is 1 mark)**

---

**139** Work out the cube root of 64

.....  
**(Total for Question 139 is 1 mark)**

---

140 Write 0.31 as a fraction.

.....  
(Total for Question 140 is 1 mark)

141 Here are four fractions.

$$\frac{3}{4} \qquad \frac{5}{7} \qquad \frac{19}{25} \qquad \frac{11}{15}$$

Write the fractions in order of size.  
Start with the smallest fraction.

.....  
(Total for Question 141 is 2 marks)

142 (a) Write the number 0.000 075 47 in standard form.

.....  
\*3+

(b) Write  $3.42 \times 10^4$  as an ordinary number.

.....  
\*3+

(c) Work out  $\frac{2.3 \times 10^4 \times 6.7 \times 10^3}{5 \times 10^{-8}}$

.....  
(2)

(Total for Question 142 is 4 marks)

143 Write 1.59 correct to 1 decimal place.

.....  
**(Total for Question 143 is 1 mark)**

---

144 Work out the value of  $3^5$

.....  
**(Total for Question 144 is 1 mark)**

---

145 Write down a 6 digit number that has 4 as its thousands digit.  
You can only use the digit 4 once.

.....  
**(Total for Question 145 is 1 mark)**

---



**146** Margaret is thinking of a number.  
She says,

“My number is odd. It is a factor of 36 and a multiple of 3”

There are two possible numbers Margaret can be thinking of.

Write down these two numbers.

---

**(Total for Question 146 is 3 marks)**

---

- 147** Mohsin, Yusuf and Luke are going to play a game.  
At the end of the game, one of them will be in First place, one of them will be in Second place and one of them will be in Third place.

Use the table below to list all the possible outcomes of the game.

First place	Second place	Third place

---

**(Total for Question 147 is 2 marks)**

148 Neil buys 30 pens, 30 pencils, 30 rulers and 30 pencil cases.

<b>Price list</b>	
pens	6 for 82p
pencils	15 for 45p
rulers	10 for £1.25
pencil cases	37p each

What is the total amount of money Neil spends?

£.....

(Total for Question 148 is 5 marks)

149 (a) Write down all the prime numbers between 20 and 30

.....  
\*4+

Catherine says,

“2 is the only even prime number.”

(b) Is Catherine right?

You must give a reason for your answer.

.....  
.....  
(1)

(Total for Question 149 is 3 marks)

150 (a) Find the lowest common multiple (LCM) of 40 and 56

.....  
\*4+

$$A = 2^3 \times 3 \times 5$$

$$B = 2^2 \times 3 \times 5^2$$

(b) Write down the highest common factor (HCF) of  $A$  and  $B$ .

.....  
(1)

(Total for Question 150 is 3 marks)

151 Write  $\frac{7}{100}$  as a decimal.

.....  
**(Total for Question 151 is 1 mark)**

---

152 Write down a multiple of 6 that is between 40 and 50

.....  
**(Total for Question 152 is 1 mark)**

---

153 Ken buys some fruit.

He buys apples, bananas, peaches and oranges.  
Ken buys

6 kg of apples  
4 kg of bananas  
5 kg of peaches

Each orange has a weight of 90 g.

The fruit has a total weight of 1.785 kg.

(a) Work out how many oranges Ken buys.

.....  
\*5+

Jane wants to buy 15 tomatoes.  
She asks for 1 kg of tomatoes at a shop.  
Jane assumes that each tomato has a weight of 75 g.

(b) (i) If Jane's assumption is correct, will she get 15 tomatoes?  
You must show how you get your answer.

\*4+

.....  
.....  
\*4+  
\*4+  
Justify your answer.

.....  
.....  
(1)

(Total for Question 153 is 6 marks)

**154** Steve says,

“There are more prime numbers between 20 and 30  
than there are between 10 and 20”

Is Steve right?

You must show how you get your answer.

---

**(Total for Question 154 is 2 marks)**

**155** Mr Page uses oil to heat his home.

At the beginning of November there were 1000 litres of oil in his oil tank.

Mr Page bought enough oil to fill the tank completely.

He paid 50p per litre for this oil.

He paid a total amount of £750

At the end of February Mr Page had 600 litres of oil in the tank.

He bought enough oil to fill the tank completely.

The cost of oil had increased by 4%.

Work out the total amount Mr Page paid for the oil he bought in February.

£.....

**(Total for Question 155 is 5 marks)**



**156** Use your calculator to work out  $\sqrt{\frac{\sin 25^\circ + \sin 40^\circ}{\cos 25^\circ - \cos 40^\circ}}$

(a) Write down all the figures on your calculator display.

.....  
\*4+

(b) Write your answer to part (a) correct to 2 decimal places.

.....  
(1)

**(Total for Question 156 is 3 marks)**

---

**157** Write 56.78 correct to one significant figure.

.....  
**(Total for Question 157 is 1 mark)**

---

**158** Here are four fractions.

$$\frac{2}{5}$$

$$\frac{11}{30}$$

$$\frac{1}{2}$$

$$\frac{7}{15}$$

Write these fractions in order of size.  
Start with the smallest fraction.

---

**(Total for Question 158 is 2 marks)**

---

**159** There are 495 coins in a bottle.

$\frac{1}{3}$  of the coins are £1 coins.

124 of the coins are 50p coins.

The rest of the coins are 20p coins.

Work out the total value of the 495 coins.

£.....

**(Total for Question 159 is 4 marks)**

---

160 Here is a list of numbers.

21    22    23    24    25    26    27    28    29

(a) From the numbers in the list, write down a square number.

.....  
\*3+

\*d+"Htqo "yj g'pwo dgtu"lp"yj g"ruv."y tkg'f qy p"c'pwo dgt"vj cv'ku"o wnk rg"qh'dqj "6"cpf "8

.....  
\*3+

(c) Write down all the prime numbers in the list.

.....  
(1)

(Total for Question 160 is 3 marks)

161 Suha is going to buy 150 envelopes.

Here is some information about the cost of envelopes in two shops.

Ngwgtu4ugpf  
Rcem'qh'47"gpXgr gr'ht '¥506;

Ucwkpgt {"Y qtrf  
Rcem'qh'32"gpXgr gr'ht '¥4082"  
Dw{ "4'r cemu'i gv'3'r cem'lt gg

Suha wants to buy the envelopes as cheaply as possible.

Which shop should Suha buy the 150 envelopes from?  
You must show how you get your answer.

---

(Total for Question 161 is 4 marks)

162 (a) Write  $4.7 \times 10^{-1}$  as an ordinary number.

.....  
(1)

(b) Work out the value of  $(2.4 \times 10^3) \times (9.5 \times 10^5)$   
Give your answer in standard form.

.....  
(2)

**(Total for Question 162 is 3 marks)**

163 A number,  $n$ , is rounded to 2 decimal places.

$4.7 \times 10^2$

Write down the range of possible values for  $n$ .

.....  
**(Total for Question 163 is 2 marks)**

164 Write  $\frac{7}{16}$  as a decimal.

.....  
**(Total for Question 164 is 1 mark)**

---

165 Here is a list of numbers

4    7    9    25    27    31    64

From the numbers in the list, write down a cube number.

.....  
**(Total for Question 165 is 1 mark)**

---

166 Find the value of  $(2.8 - 0.45)^2 + \sqrt[3]{5.832}$

.....  
**(Total for Question 166 is 2 marks)**

---

**167** Jan writes down

one multiple of 9  
and two different factors of 40

Jan adds together her three numbers.  
Her answer is greater than 20 but less than 30

Find three numbers that Jan could have written down.

.....  
**(Total for Question 167 is 3 marks)**

**168** Adam says,

“When you multiply an even number by an odd number  
the answer is always an odd number.”

(a) Write down an example to show Adam is wrong.

.....  
**\*3+**

Betty says,

“When you multiply two prime numbers together  
the answer is always an odd number.”

(b) Betty is wrong.  
Explain why.

.....  
.....  
**(2)**

**(Total for Question 168 is 3 marks)**



**169** Find the Highest Common Factor (HCF) of 24 and 60

.....  
**(Total for Question 169 is 2 marks)**

**170** Write down the value of the 3 in 16.35

.....  
**(Total for Question 170 is 1 mark)**

**171** Here is a list of six numbers.

1      3      6      9      12      24

Which number in the list is **not** a factor of 24?

.....  
**(Total for Question 171 is 1 mark)**

**174** Write 0.21 as a fraction.

.....  
**(Total for Question 172 is 1 mark)**

**175** A shop sells pens at different prices.  
The cheapest pens in the shop cost 27p each.

Lottie buys 18 pens from the shop.  
She pays with a £10 note.

(a) If Lottie buys 18 of the cheapest pens, how much change should Lottie get?

£.....  
(2)

Instead of buying the cheapest pens, Lottie buys 18 of the more expensive pens.  
She still pays with a £10 note.

(b) How does this affect the amount of change she should get?

.....  
.....  
(1)

**(Total for Question 175 is 3 marks)**

**174** Michelle and Wayne have saved a total of £458 for their holiday.  
Wayne saved £72 more than Michelle.

How much did Wayne save?

£.....

**(Total for Question 174 is 2 marks)**

177 Work out 70% of £90

£.....

(Total for Question 177 is 2 marks)

178 Here are four fractions.

$$\frac{1}{2} \quad \frac{17}{24} \quad \frac{3}{4} \quad \frac{5}{12}$$

Write these fractions in order of size.  
Start with the smallest fraction.

.....  
(Total for Question 178 is 2 marks)

177 (a) Work out  $\frac{4}{5}$  of 210 cm.

..... cm

(1)

(b) Work out  $(6 - 2.5)^2 + \sqrt{9.34 - 2.58}$

.....  
(2)

(Total for Question 177 is 3 marks)

17: Lethna worked out  $\frac{2}{5} + \frac{1}{2}$

She wrote:

$$\frac{2}{5} + \frac{1}{2} = \frac{2}{10} + \frac{1}{10} = \frac{3}{10}$$

The answer of  $\frac{3}{10}$  is wrong.

(a) Describe one mistake that Lethna made.

(1)

Dave worked out  $1\frac{1}{2} \times 5\frac{1}{3}$

He wrote:

$$1 \times 5 = 5 \quad \text{and} \quad \frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$$

$$\text{so} \quad 1\frac{1}{2} \times 5\frac{1}{3} = 5\frac{1}{6}$$

The answer of  $5\frac{1}{6}$  is wrong.

(b) Describe one mistake that Dave made.

(1)

(Total for Question 17: is 2 marks)

**179** Write 6819 to the nearest 1000

.....  
**(Total for Question 179 is 1 mark)**

---

**180** Write these temperatures in order."  
Start with the lowest temperature.

7°C      -2°C      10°C      -5°C      3°C

.....  
**(Total for Question 180 is 1 mark)**

---

**181** Write 0.075 as a fraction.  
Give your fraction in its simplest form.

.....  
**(Total for Question 181 is 2 marks)**

---

**182** Find the value of  $5^4$

.....  
**(Total for Question 182 is 1 mark)**

---

183

Nkxkpi "vq"322"{ gctu"qrf  
3"kp"5"dcdkgu"dqtp"rcuv"{ gct"  
ctg"gzr gevfg "vq"rkxg"  
vq"322"{ gctu"qrf

720 000 babies were born last year.

How many of these babies are expected to live to 100 years old?

.....  
**(Total for Question 183 is 2 marks)**

**184** Here is part of a train timetable from Swindon to London.

Swindon to London							
Swindon	06 10	06 27	06 41	06 58	07 01	07 17	07 28
Didcot	06 27	06 45	06 58	–	07 18	–	07 45
Reading	06 41	06 59	07 13	07 28	07 33	07 43	08 00
London	07 16	07 32	07 44	08 02	08 07	08 14	08 33

(a) How long should the 06 58 train from Swindon take to get to London?

.....  
\*3+

Clare says,

“All these trains take more than one hour to get from Swindon to London.”

(b) Is Clare correct?

You must give a reason for your answer.

.....  
.....  
(1)

(Total for Question 184 is 2 marks)

**185** Tracy buys

2 coffees at	£1.10	each
3 teas at	95p	each
5 sandwiches at	£2.15	each

Tracy shares the total cost equally between 5 people.

How much does each person pay?

£ .....

---

**(Total for Question 185 is 4 marks)**



**186** Martin has 8 pints of soup in a pan.  
He also has 24 soup bowls.  
He puts 0.3 pints of soup into each bowl.

How much soup has Martin left over?

.....pints

**(Total for Question 186 is 3 marks)**

---

**187** Find the highest common factor (HCF) of 32, 48 and 72

.....

**(Total for Question 187 is 2 marks)**

---

188 Write down two factors of 35

.....

**(Total for Question 188 is 1 mark)**

---

189 What is the time 2 hours 40 minutes after 8.05'am?

..... am

**(Total for Question 189 is 1 mark)**

---

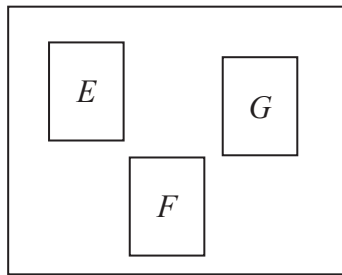
190 Work out  $\frac{1}{6}$  of 66

.....

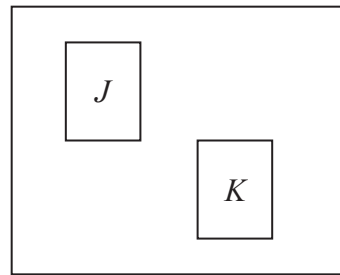
**(Total for Question 190 is 1 mark)**

---

3; 3" Vj gtg'ctg'yj tgg'ectf u'lp'dci "C"cpf "y q'ectf u'lp'dci "D0'  
 There is a letter on each card.



Deck C



Deck D

Two cards are chosen from Deck C and Deck D.

What is the probability that the two cards have the same letter?

.....

.....

.....

(Total for Question 191 is 2 marks)

192 On Monday, Sandy pays for 2 plane tickets, 7 nights in a hotel and 2 theme park tickets.

	Amount
each plane ticket	600
each night in a hotel	120
each theme park ticket	250

Show that Sandy pays more than 2500 dollars on Monday.

(Total for Question 192 is 3 marks)

**193** Corina has £300 to spend on books.  
Each book costs £4.85

Work out the greatest number of books Corina can buy.

.....  
**(Total for Question 193 is 3 marks)**

**194** A stadium cost £600 million.

$\frac{13}{15}$  of this cost was for the building.

The rest of the cost was for the land.

Work out the cost of the land.

£..... million

**(Total for Question 194 is 3 marks)**

195 (a) Write  $4.5 \times 10^5$  as an ordinary number.

.....  
\*3+

(b) Write 0.007 in standard form.

.....  
\*3+

(c) Work out  $4.2 \times 10^3 + 5.3 \times 10^2$   
Give your answer in standard form.

.....  
(2)

**(Total for Question 195 is 4 marks)**

---

196 Work out  $\frac{1}{3}$  of 24

.....  
(Total for Question 196 is 1 mark)

197 Work out  $2.5^2$

.....  
(Total for Question 197 is 1 mark)

198 Write the following numbers in order of size.  
Start with the smallest number.

1      - 6      0      7      - 8      - 3      2

.....  
(Total for Question 198 is 1 mark)

**199** Karim buys 200 tiles.

The tiles are sold in boxes.

There are 25 tiles in each box.

Each box of tiles costs £9.75

Work out the total cost of the boxes of tiles Karim buys.

£ .....

**(Total for Question 199 is 3 marks)**

---

200 (a) Work out the value of  $\frac{300}{2 \times 5}$

.....  
\*3+

(b) Work out the value of  $(6 - 2.5)(8 + 4)$

.....  
\*3+

(c) Write down the reciprocal of 20

.....  
(1)

**(Total for Question 200 is 3 marks)**

---



201 Here are the costs of the same type of batteries in two shops.

Shop
Pack of 4 batteries
£1.60

Shop
Pack of 6 batteries
£2.70

Harry needs to buy at least 30 batteries.

He assumes that he has to buy batteries in whole packs.

Harry wants to buy the batteries as cheaply as possible from the same shop.

You must show all your working.

6+

Harry needs to buy at least 30 batteries.

He assumes that he has to buy batteries in whole packs.

(b) Does this affect which of these two shops Harry should buy the batteries from?  
Give a reason for your answer.

(1)

(Total for Question 201 is 5 marks)

**202** Akhtar, Ben and Carl each have some money.

Akhtar has £65

Ben has £100

Carl has three £5 notes, one £20 note and some £10 notes.

The mean amount of money per person is £80

How many £10 notes does Carl have?

.....  
**(Total for Question 202 is 4 marks)**

**203** A number,  $m$ , is rounded to 1 decimal place.

The result is 9.4

Complete the error interval for  $m$ .

.....  $\leq m <$  .....

**(Total for Question 203 is 2 marks)**

204 Write down two factors of 12

..... , .....

**(Total for Question 204 is 1 mark)**

205 Find  $\frac{1}{3}$  of 30

.....

**(Total for Question 205 is 1 mark)**

206 Write 0.7 as a fraction.

.....

**(Total for Question 206 is 1 mark)**

207 Here is a list of numbers.

7    8    15    16    18    22

Write down the number from the list that is a multiple of 6

.....

**(Total for Question 207 is 1 mark)**

**208** Dylan buys 13 bicycle lights for £7.50 each.  
He pays with five £20 notes.

How much change should Dylan get?

£.....  
(3)

**(Total for Question 208 is 3 marks)**

**209** (a) Use your calculator to work out  $\frac{29^2 - 4.6}{\sqrt{35 - 1.9^3}}$

Write down all the figures on your calculator display.

.....  
(2)

(b) Write your answer to part (a) correct to 4 significant figures.

.....  
(1)

**(Total for Question 209 is 3 marks)**

210 (a) Write 32 460 000 in standard form.

.....  
(1)

(b) Write  $4.96 \times 10^{-3}$  as an ordinary number.

.....  
(1)

Asma was asked to compare the following two numbers.

$$A = 6.212 \times 10^8 \quad \text{and} \quad B = 4.73 \times 10^9$$

She says,

“6.212 is bigger than 4.73 so  $A$  is bigger than  $B$ .”

(c) Is Asma correct?

You must give a reason for your answer.

.....  
.....  
.....  
(1)

---

(Total for Question 210 is 3 marks)

211 Write 478 to the nearest hundred.

.....  
(Total for Question 211 is 1 mark)

212 Write down a multiple of 8 that is between 41 and 60

.....  
(Total for Question 212 is 1 mark)

213 Here is a list of numbers.

4      6      9      10      15      27      30      40

From the list, write down all the numbers that are powers of 3

.....  
(Total for Question 213 is 1 mark)

214 There are four types of counter in a bag.

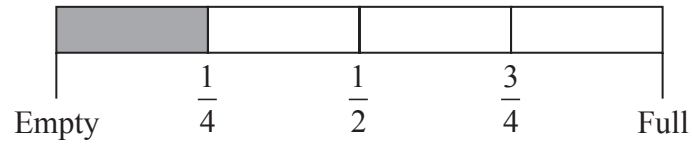
The table shows the number of each type of counter in the bag.

	red circle	green circle	red square	green square
	16	26	11	7

There are more green counters than red counters.  
How many more?

.....  
(Total for Question 214 is 2 marks)

215 Here is the gauge for the fuel tank of a car.



The fuel tank holds 52 litres of fuel when the tank is full.

The tank is  $\frac{1}{4}$  full of fuel.

Work out how many more litres of fuel are needed to fill the tank.

..... litres

**(Total for Question 215 is 3 marks)**

**216** The table shows the costs of sending a parcel by the Express service and by the Rapid service.

Service	Cost
Express	£15.25
Rapid	£35.38

Brendan has to send 12 parcels.

It will be cheaper to send the parcels by the Express service than by the Rapid service.

(a) How much cheaper?

£.....  
\*5+

Luke wants to send 21 parcels by the Express service.

He does the calculation  $20 \times £15 = £300$  to estimate the cost.

(b) Explain why Luke's calculation shows the actual cost will be more than £300

.....  
.....  
.....  
(1)

**(Total for Question 216 is 4 marks)**



217 Find the value of  $\frac{5.27 + 3.5}{7.9 - 4.36}$

Give your answer as a decimal.

Write down all the figures on your calculator display.

---

(Total for Question 217 is 2 marks)

---

**218** Costcorp sells packets of mints to shop owners.

On Monday three shop owners buy mints from Costcorp.

Each shop owner buys small packets, medium packets and large packets of mints.

Alan buys 400 packets of mints.

32% are small packets.

40% are large packets.

Beryl buys 500 packets of mints.

$\frac{3}{10}$  are small packets.

$\frac{1}{10}$  are large packets.

Charlie buys 150 small packets of mints so that

number of small packets : number of medium packets = 3 : 4

Work out the total number of medium packets of mints these shop owners buy.

You must show all your working.

.....  
(Total for Question 218 is 5 marks)

**219** Write a number in each box to make the calculation correct.

(i)  $56.3 + \boxed{\text{.....}} = 100$

\*3+

(ii)  $\frac{2}{7} + \boxed{\text{.....}} = 1$

(1)

**(Total for Question 219 is 2 marks)**

---

**220** Find  $\sqrt{1.44}$

.....  
**(Total for Question 220 is 1 mark)**

---

**221** Work out  $\frac{1}{8}$  of 720

.....  
**(Total for Question 221 is 1 mark)**

---

**222** Annie sold

45 books at £1.20 each  
34 candles at £1.50 each  
some calendars at 90p each

She got a total of £150

Work out how many calendars Annie sold.

.....  
**(Total for Question 222 is 4 marks)**

---

**223** Bert has 100 cards.

There is a whole number from 1 to 100 on each card.

No cards have the same number.

Bert puts a star on every card that has a multiple of 3 on it.

He puts a circle on every card that has a multiple of 5 on it.

Work out how many cards have both a star and a circle on them.

.....  
**(Total for Question 223 is 3 marks)**

---

**224** Trevor buys a boat.

The cost of the boat is £14 200 plus VAT at 20%

Trevor pays a deposit of £5000

He pays the rest of the cost in 10 equal payments.

Work out the amount of each of the 10 payments.

£ .....

**(Total for Question 224 is 4 marks)**

---

225 (a) Write 7357 correct to 3 significant figures.

.....  
\*3+

(b) Work out  $\frac{\sqrt{17 + 4^2}}{7.3^2}$

Write down all the figures on your calculator display.

.....  
(2)

**(Total for Question 225 is 3 marks)**

---

226 Write  $\frac{9}{10}$  as a decimal.

.....  
(Total for Question 226 is 1 mark)

227 Write the number 2538 correct to the nearest hundred.

.....  
(Total for Question 227 is 1 mark)

228 Here are four digits.

7      3      4      9

(a) Use three of these digits to write down the largest possible 3-digit number.

.....  
\*3+

(b) Here are four different digits.

8      2      1      6

Put one of these digits in each box to give the smallest possible answer to the sum.  
You must use each digit only once.

$$\begin{array}{|c|} \hline \phantom{0} \\ \hline \end{array} \begin{array}{|c|} \hline \phantom{0} \\ \hline \end{array} + \begin{array}{|c|} \hline \phantom{0} \\ \hline \end{array} \begin{array}{|c|} \hline \phantom{0} \\ \hline \end{array}$$

(1)

(Total for Question 228 is 2 marks)

229 Write down all the factors of 30

.....  
(Total for Question 229 is 2 marks)



230 (a) Find the value of  $\sqrt{3066 \times 5083}$

.....  
\*3+

(b) Find the value of  $(3.54 - 0.96)^2 - 4.096$

.....  
(2)

**(Total for Question 230 is 3 marks)**

---

231 This is part of a bus timetable between Bury and Manchester.

Dwt {	08 25	08 55	09 15	09 30	09 45	10 05
Whitefield	08 34	09 04	09 24	09 39	09 54	10 14
Heaton Park	08 46	09 16	09 36	09 51	10 06	10 27
Cheetham	08 56	09 26	09 46	10 01	10 16	10 37
O cpej gvgt	09 05	09 35	09 55	10 10	10 25	10 48

(a) How many minutes should the 08 25 bus take to go from Bury to Manchester?

..... minutes  
\*3+

Daniel goes from Whitefield to Manchester by bus.

Daniel takes 17 minutes to get from his house to the bus stop in Whitefield.  
He takes 15 minutes to get from the bus stop in Manchester to work.

Daniel has to get to work by 10 am.  
He leaves his house at 8.45 am.

(b) Does Daniel get to work by 10 am?  
You must show all your working.

(3)

(Total for Question 231 is 4 marks)

**232** Jenny is asked to find the value of  $12 - 2 \times 4$

Here is her working.

$$12 - 2 \times 4 = 10 \times 4 = 40$$

Jenny's answer is wrong.

Explain what Jenny has done wrong.

.....  
.....  
\*3+

---

**(Total for Question 232 is 1 marks)**

**233** Alan, Bispah and Chan share a sum of money.

Alan gets  $\frac{1}{8}$  of the money.

Bispah gets  $\frac{1}{2}$  of the money.

Chan gets the rest of the money.

Alan gets £2.50

Work out how much money Bispah gets.

£.....  
(2)

---

**(Total for Question 233 is 2 marks)**

234 Work out the value of  $\frac{2.645 \times 10^9}{1.15 \times 10^3}$

Give your answer in standard form.

.....  
**(Total for Question 234 is 2 marks)**

---

235 Write 3758 correct to the nearest 1000

(Total for Question 235 is 1 mark)

236 Write down all the factors of 18

(Total for Question 236 is 2 marks)

237 The table gives information about the prices of cinema tickets.

Elpgo c"vengv	Rtleq
adult ticket	£7.80
child ticket	£5.80
family ticket (for 4 people)	£24.30

Mr Edwards and his 3 children go to the cinema.

It is cheaper for Mr Edwards to buy 1 family ticket rather than 4 separate tickets.

How much cheaper?

(3)

(Total for Question 237 is 5 marks)

**238** Thais has a large bottle of shampoo.  
There are 2 litres of shampoo in the large bottle.

Thais also has some empty small bottles.  
Each small bottle can be completely filled with 150 ml of shampoo.

How many small bottles can be completely filled with shampoo from the large bottle?

.....  
**(Total for Question 238 is 3 marks)**

**239** Nidah writes down two different prime numbers.

She adds together her two numbers.  
Her answer is a square number less than 30

Find two prime numbers that Nidah could have written down.

..... , ....  
**(Total for Question 239 is 2 marks)**

**240** Jim thinks of a number.

$\frac{2}{3}$  of Jim's number is 48

Work out  $\frac{5}{6}$  of Jim's number.

.....  
**(Total for Question 240 is 2 marks)**

---

**241** Jack's driving school has two offers.

**Offer 1**

First driving lesson free  
All other driving lessons normal price

**Offer 2**

All driving lessons  
5% off the normal price

The normal price of a driving lesson is £24

Douglas is going to have 12 driving lessons.

Which is the cheaper offer for 12 driving lessons, Offer 1 or Offer 2?

You must show how you get your answer.

---

**(Total for Question 241 is 3 marks)**



- 242** (a) Find the value of the reciprocal of 1.6  
Give your answer as a decimal.

.....  
\*3+

Jess rounds a number,  $x$ , to one decimal place.  
The result is 9.8

- (b) Write down the error interval for  $x$ .

.....  
(2)

**(Total for Question 242 is 3 marks)**

- 243** Work out  $(13.8 \times 10^7) \times (5.4 \times 10^{-12})$   
Give your answer as an ordinary number.

.....  
**(Total for Question 243 is 2 marks)**

244 The table shows the lengths of five rivers.

Length	Length in km
Trent	297
Don	112
Severn	354
Thames	346
Mersey	113

(a) Write down the rivers in order of length.

Start with the shortest river.

.....  
.....  
(1)

Ami says,

“The River Thames is more than three times as long as the River Don.”

(b) Show that Ami is correct.

.....  
.....  
(1)

**(Total for Question 244 is 2 marks)**

245 Here are four digits.

5      6      1      9

(i) Write down the smallest possible two digit number that can be made with two of the digits.

.....  
\*3+

(ii) Write down the three digit number closest to 200 that can be made with three of the digits.

.....  
(1)

**(Total for Question 245 is 2 marks)**

---

246  $\frac{4}{5}$  of a number is 32

Find the number.

.....  
**(Total for Question 246 is 2 marks)**

---

247 A path is made of white tiles and grey tiles.

$\frac{1}{4}$  of the tiles are white.

There is a total of 56 tiles.

Work out the number of grey tiles.

.....  
(2)

**(Total for Question 247 is 2 marks)**

---

248 Priti is going to have a meal.  
She can choose one starter and one main course from the menu.

"O gpw	
Uctvgt	O clp"Eqtug
Salad	Pasta
Fish	Rice
Melon	Burger

Write down all the possible combinations Priti can choose.

.....

.....

.....

**(Total for Question 248 is 2 marks)**

249 Joanne wants to buy a dishwasher.

The dishwasher costs £372

Joanne will pay a deposit of £36

She will then pay the rest of the cost in 4 equal monthly payments.

How much is each monthly payment?

£.....

**(Total for Question 249 is 2 marks)**

**250** Daniel bakes 420 cakes.

He bakes only vanilla cakes, banana cakes, lemon cakes and chocolate cakes.

$\frac{2}{7}$  of the cakes are vanilla cakes.

35% of the cakes are banana cakes.

The ratio of the number of lemon cakes to the number of chocolate cakes is 4:5

Work out the number of lemon cakes Daniel bakes.

.....  
**(Total for Question 250 is 5 marks)**

**251** Harley's house has a value of £160 000 correct to 2 significant figures.

(a) Write down the least possible value of the house.

£ .....  
**(1)**

(d) Write down the greatest possible value of the house.

£ .....  
**(1)**

**(Total for Question 251 is 4 marks)**

252 Write 2148 correct to the nearest 100

.....  
**(Total for Question 252 is 1 mark)**

---

253 Faiza buys

one magazine costing £2.30  
one paper costing 92p  
**two** identical bars of chocolate

Faiza pays with a £5 note.  
She gets 40p change.

Work out the cost of *qpg* bar of chocolate.

.....  
**(Total for Question 253 is 3 marks)**

---

- 254** 1 yard is 36 inches.  
10 cm is an approximation for 4 inches.

Work out an approximation for the number of cm in 2 yards.

.....  
**(Total for Question 254 is 3 marks)**

---

- 255** Work out 234% of 150

.....  
**(Total for Question 255 is 2 marks)**

---



**256** Here are four numbers.

0.43       $\frac{3}{7}$       43.8%       $\frac{7}{16}$

Write these numbers in order of size.  
Start with the smallest number.

.....  
**(Total for Question 256 is 2 marks)**

**257** Here is a list of five numbers.

14      15      16      17      18

From the list,

(i) write down the prime number,

(ii) write down the square number.

.....  
**(Total for Question 257 is 2 marks)**

**258** Write the number 5689 correct to the nearest thousand.

.....  
**(Total for Question 258 is 1 mark)**

**259** Work out  $\frac{30 + 12}{5 + 3}$

.....  
**(Total for Question 259 is 1 mark)**

**260** Work out the reciprocal of 0.125

.....  
**(Total for Question 260 is 1 mark)**

**261** Here is a list of numbers.

1      2      5      6      12

From the list, write down

(i) a multiple of 4

(ii) a prime number

.....  
.....  
**(Total for Question 261 is 2 marks)**

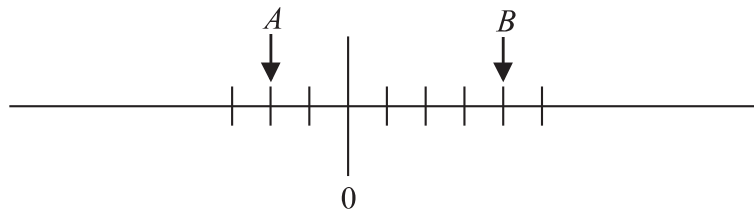
**262** Jayne writes down the following

$$3.4 \times 5.3 = 180.2$$

Without doing the exact calculation, explain why Jayne's answer cannot be correct.

.....  
.....  
**(Total for Question 262 is 1 mark)**

263 The two numbers,  $A$  and  $B$ , are shown on a scale.



The difference between  $A$  and  $B$  is 48

Work out the value of  $A$  and the value of  $B$ .

$A = \dots\dots\dots$

$B = \dots\dots\dots$

(Total for Question 263 is 3 marks)

264 The same number is missing from each box.

$$\square \times \square \times \square = 343$$

(a) Find the missing number.

$\dots\dots\dots$   
(1)

(b) Work out  $4^4$

$\dots\dots\dots$   
(1)

(Total for Question 264 is 2 marks)

**265** Here are two numbers.

29    37

Nadia says both of these numbers can be written as the **sum** of two square numbers.

Is Nadia correct?

You must show how you get your answer.

---

**(Total for Question 265 is 3 marks)**

**266** The length,  $L$  cm, of a line is measured as 13 cm correct to the nearest centimetre.

Complete the following statement to show the range of possible values of  $L$

.....  $\leq L <$  .....

---

**(Total for Question 266 is 2 marks)**

267 Write 0.19 as a fraction.

.....

(Total for Question 267 is 1 mark)

268 Write down an even number that is a multiple of 7

.....

(Total for Question 268 is 1 mark)

269 Write  $\frac{3}{5}$  as a percentage.

..... %

(Total for Question 269 is 1 mark)

270 Write down three different factors of 18 that add together to give a prime number.

.....

(Total for Question 270 is 2 marks)

271 (a) Find the value of  $\sqrt[3]{97.336}$

.....

\*3+

(b) Find the value of  $\sqrt{7.29} + (2.3 - 0.85)^2$

.....

(2)

(Total for Question 271 is 3 marks)

**272** Jim rounds a number,  $x$ , to one decimal place.

The result is 7.2

Write down the error interval for  $x$ .

.....  
**(Total for Question 272 is 2 marks)**

---

273 (a) Work out  $\frac{1}{4}$  of £20

£ .....  
\*3+

(b) Write 0.7 as a fraction.

.....  
\*3+

(c) Write 3% as a decimal.

.....  
\*3+

(d) Work out 20% of £80

£ .....  
(2)

---

(Total for Question 273 is 5 marks)

**274** Mr and Mrs Shankara and their 3 children go on a train journey.

Mr Shankara pays for 2 adult tickets and 3 child tickets.

The price of an adult ticket is £8.40

The price of a child ticket is half the price of an adult ticket.

Mr Shankara pays for the tickets with 3 ten pound notes.

Work out how much change he should get.

---

**(Total for Question 274 is 4 marks)**



**275** Here is Katya's fitness plan for one week.

On the first 4 days of the week, run 1500 metres each day.

On the last 3 days of the week, run 3 kilometres each day.

Katya uses her fitness plan for one week.

Work out the total distance she runs.

.....  
**(Total for Question 275 is 3 marks)**

---

**276** Here are the instructions to work out the time, in minutes, needed to cook a chicken.

25 minutes for each $\frac{1}{2}$ kg then add 15 minutes
---

Lawrence is going to cook a chicken.

The chicken has a weight of 2 kg.

Lawrence wants to finish cooking the chicken at 6 30 pm.

Work out the time he should start to cook the chicken.

---

**(Total for Question 276 is 4 marks)**

277" Ego rmgv"j g"vdrng"d{"y tkkpi "c"uwkcdng"o gvtke"wpk'ht"geej "o gcuwtgo gp0

The volume of water in a glass	250 .....
The distance from London to Brighton	74 .....
The weight of a bus	12 .....

**(Total for Question 277 is 3 marks)**

278 Here is a price list in a school shop.

Price list	
pens	30p each
pencils	20p each
rulers	45p each
erasers	10p each

Beth wants to spend exactly 75p in the shop.

- (a) How many different ways are there for Beth to spend exactly 75p?  
You must show how you got your answer.

.....  
\*4+

Alex buys 7 pens and 3 rulers.  
He pays with a £5 note.

- (b) How much change should Alex get?

£ .....  
\*5+

Chris buys  $y$  pencils.

- (c) Write down an expression, in terms of  $y$ , for the total cost of the pencils in pence.

..... pence  
(1)

(Total for Question 278 is 6 marks)

279 The time zone clock shows the times in four cities on Monday when it is 0900 in London.

London	New York	Moscow	Tokyo
0900	0400	1200	1700

(a) What is the difference between the time shown in London and the time shown in Tokyo?

..... hours  
\*3+

(b) What is the time in London when it is 1730 in Moscow?

.....  
\*3+

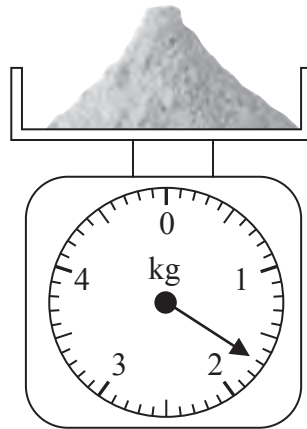
Richard goes by plane from London to New York.  
The plane leaves when the time in London is 1400  
The plane takes 9 hours to get to New York.

(c) What is the time in New York when the plane gets there?

.....  
(2)

(Total for Question 279 is 4 marks)

280 Emma puts some flour on a weighing scale.



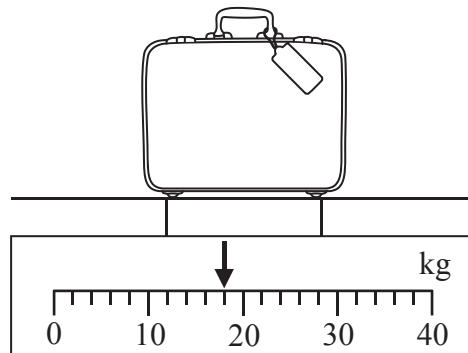
Emma needs 2 kg of flour.

(a) How many more grams of flour does she need?

..... grams  
\*4+

Sanah's suitcase is weighed at an airport.

The weight of her suitcase is shown on the scale.



Sanah's suitcase weighs more than 15 kg, so she has to pay an excess baggage charge. She has to pay £7 for each kg more than 15 kg.

(b) How much does Sanah have to pay?

£ .....  
(3)

(Total for Question 280 is 5 marks)

**281** Write these numbers in order of size.  
Start with the smallest number.

35%       $\frac{3}{10}$       0.32       $\frac{2}{5}$       0.25

---

(Total for Question 281 is 2 marks)

---

282

Vtclp"vengvu  
f c{ "tgwtp"¥8067"  
o qpj n{ "ucxgt"¥; : 0/2

Sue goes to work by train.

Sue worked for 18 days last month.

She bought a day return ticket each day she worked.

A monthly saver ticket is cheaper than 18 day return tickets.

How much cheaper?

£ .....

(Total for Question 282 is 4 marks)



283 (a) Write  $\frac{1}{2}$  as a decimal.

.....  
(1)

(b) Write 0.3 as a fraction.

.....  
(1)

(c) Write 0.8 as a percentage.

.....%  
(1)

(d) Work out  $7.2 \times 8$

.....  
(1)

(e) Work out  $\frac{7}{12} - \frac{3}{12}$

Give your answer as a fraction in its simplest form.

.....  
(2)

(Total for Question 283 is 6 marks)

- 284 The table shows the numbers of people, in thousands, visiting five castles in 2009 and in 2010

Castle	People visiting in thousands	
	2009	2010
Bodiam	185	177
Chirk	108	120
Dunster	133	128
Penrhyn	231	230
Scotney	124	118

- \*(a) Did a greater total number of people visit these castles in 2009 or in 2010?  
You must show all your working.

(3)

David wants to visit Dunster castle.  
He is going to go from Taunton to Dunster by bus.

Here is part of the bus timetable.

Taunton	07 20	08 42	09 33	11 03
Coombe Florey	07 40	08 58	09 58	11 28
Watchet	08 03	09 21	10 21	11 51
Carhampton	08 16	09 34	10 34	12 04
Dunster	08 18	09 36	10 36	12 06

A bus leaves Taunton at 08 42

(b) (i) What time should this bus get to Dunster?

.....

(ii) How many minutes should this bus take to get from Taunton to Dunster?

..... minutes

(2)

Anne lives in Watchet.  
She is going to go to Dunster by bus.  
She wants to arrive in Dunster by 10 00

(c) Write down the time of the latest bus Anne can get from Watchet.

.....

(1)

**(Total for Question 284 is 6 marks)**

**285** Ameeta and some friends want to have a meal in a restaurant.  
On Saturday, each meal will cost £21

Ameeta sees this special offer.

**Special Offer**

On Wednesday, each meal will cost £14

Ameeta is going to book a table for 6 people.

The total cost of the 6 meals will be less on Wednesday than on Saturday.

(a) How much less?

£.....  
(3)

Ameeta can choose one main course and one dessert.

<b>Menu</b>	
<b>main course</b>	<b>dessert</b>
Chicken	Fruit
Lamb	Eclair
	Trifle

(b) Write down all the possible combinations Ameeta can choose.

.....

.....

.....

.....

(2)

**(Total for Question 285 is 5 marks)**

**286** Here is a list of numbers.

4      6      8      11      15      33      44

(a) From the list, write down a factor of 42

.....  
(1)

(b) From the list, write down a multiple of 22

.....  
(1)

(c) From the list, write a different number in each box to make the statement true.

$$\square \div \square \times \square = 12$$

(1)

**(Total for Question 286 is 3 marks)**

---

**287** Amber earns £7 for each hour she works from Monday to Friday.  
She earns £10 for each hour she works on Saturday.

One week Amber worked for 4 hours on Saturday.  
That week she earned a total of £180

(a) How many hours did Amber work that week?

..... hours  
(3)

Chris works for 7 hours each day from Monday to Friday.  
He earns  $e$  pounds for each hour he works.

(b) Write down an expression, in terms of  $e$ , for the total amount, in pounds, that Chris earns from Monday to Friday.  
Give your answer in its simplest form.

.....  
(2)

---

**(Total for Question 287 is 5 marks)**

---

**288** Jodie buys 12 cans of cola.  
There are 330 ml of cola in each can.

Rob buys 4 bottles of cola.  
There is 1 litre of cola in each bottle.

Rob buys more cola than Jodie.  
How much more?

.....  
**(Total for Question 288 is 3 marks)**

---

**289** There are 25 passengers on a bus.  
The bus stops at a station.

13 passengers get off the bus.  
20 passengers get on the bus.

The bus is full when there are 58 passengers on it.

(a) How many more passengers can get on the bus so that the bus is full?

.....  
(3)

The table shows the number of students on a school bus each day for two weeks.

	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>
<b>Week 1</b>	12	12	17	10	13
<b>Week 2</b>	16	20	13	12	9

There were more students on the school bus in Week 2 than in Week 1.

(b) How many more students?

.....  
(3)

**(Total for Question 289 is 6 marks)**

---



290 (a) Write the number 7378 to the nearest hundred.

.....  
(1)

(b) Write the number 6402 in words.

.....  
(1)

(c) Work out  $54 \times 1000$

.....  
(1)

(d) Work out  $\frac{1}{4}$  of 28 kg.

..... kg  
(1)

(e) Work out  $9 + 12 \div 3$

.....  
(1)

**(Total for Question 290 is 5 marks)**

**291** The table shows the cost of posting large letters.

<b>Weight range</b>	0 – 100 g	101 g – 250 g	251 g – 500 g	501 g – 750 g
<b>Cost</b>	60p	85p	£1.13	£1.59

Sajid posts 8 large letters.  
Each letter weighs 50 g.  
Sajid pays with a £10 note.

(a) How much change should Sajid get?

£ .....  
(3)

Some magazines have to be posted to a shop.

Adam wants to post the magazines as 10 large letters.  
Each letter will have a weight of 250 g.

Tina wants to post the magazines as 5 large letters.  
Each letter will have a weight of 500 g.

\*(b) Who has the cheaper way of posting the magazines?  
You must show all your working.

(3)

(Total for Question 291 is 6 marks)

**292** You can use this rule to work out the total hire charge, in pounds (£), for hiring a satellite phone.

$$\text{Total hire charge} = \text{number of weeks} \times 90 + 50$$

Ismail wants to hire a satellite phone for 4 weeks.

(a) Work out the total hire charge.

£ .....  
(2)

Dominik hires a satellite phone.  
His total hire charge is £860

(b) For how many weeks did he hire the phone?

..... weeks  
(3)

**(Total for Question 292 is 5 marks)**

**293** Milk is sold in  $\frac{1}{2}$  pint bottles, in 1 pint bottles and in 2 pint bottles.

One weekend a shop sold 100 bottles of milk.

46 of the bottles were sold on Sunday.

15 of the bottles sold on Sunday were 2 pint bottles.

31 of the bottles sold on Saturday were  $\frac{1}{2}$  pint bottles.

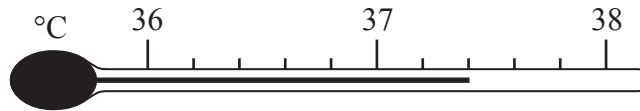
22 of the bottles sold were 2 pint bottles.

30 of the bottles sold were 1 pint bottles.

How many 1 pint bottles were sold on Sunday?

.....  
(Total for Question 293 is 4 marks)

294 Here is a thermometer.

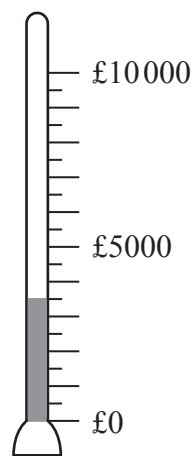


(a) Write down the temperature shown on the thermometer.

..... °C  
(1)

A Youth Club is collecting money for charity.

The scale below shows how much money the Youth Club has collected.



(b) How much more money does the Youth Club need to collect to get a total of £10,000?

£ .....  
(2)

(Total for Question 294 is 3 marks)

295 Here is a bus timetable from a Park and Ride car park to a town centre.

Car park	Town centre
0740	0752
0800	0812
0815	0827
then every 15 minutes until	
1815	1827

Sadia gets to the car park at 0745  
She catches the next bus to the town centre.

(a) What time should the bus get to the town centre?

.....  
(1)

Here is the bus timetable from the town centre to the car park.

Town centre	Car park
0803	0815
0835	0847
0902	0914
0920	0932
then every 15 minutes until	
1920	1932

(b) How many buses go from the town centre to the car park between 0800 and 1000?

.....  
(2)

Paul wants to leave the town centre after 1730  
He is going to catch a bus to the car park.

(c) What is the time of the first bus Paul can catch from the town centre after 1730?

.....  
(1)

(Total for Question 295 is 4 marks)

296 Here is information about the cost of sending a parcel to Europe by Parcel Link.

Next day delivery	£38.92 per kg
3 day delivery	£38.72 per kg

Kate is going to send a parcel to Europe by Parcel Link.  
The parcel weighs 12 kg.

Kate can send the parcel using next day delivery or using 3 day delivery.

(a) Work out the difference in the two costs.

£.....  
(3)

Adam sends a parcel to Europe by Parcel Link.  
He uses 3 day delivery.

The cost is £25

(b) Work out how many kilograms Adam's parcel weighs.

..... kg  
(3)

(Total for Question 296 is 6 marks)

**297** Rachel bought a packet of 60 balloons.

$\frac{1}{10}$  of the balloons were yellow.

$\frac{3}{5}$  of the balloons were red.

The rest of the balloons were blue.

How many of the balloons were blue?

..... balloons

**(Total for Question 297 is 3 marks)**

---



**298** John buys some boxes of pencils and some packets of pens for people to use at a conference.

There are 40 pencils in a box.

There are 15 pens in a packet.

John gives one pencil and one pen to each person at the conference.

He has no pencils left.

He has no pens left.

How many boxes of pencils and how many packets of pens did John buy?

..... boxes of pencils

..... packets of pens

---

**(Total for Question 298 is 3 marks)**

299 (a) Work out  $56 \times 1000$

.....  
(1)

(b) Work out  $600 - 324$

.....  
(1)

(c) Work out  $\frac{1}{4}$  of 24 kg

..... kg  
(1)

(d) Work out  $4 \times 5 + 9$

.....  
(1)

(e) Work out  $18 - 10 \div 2$

.....  
(1)

**(Total for Question 299 is 5 marks)**

---

**300** Sarah has saved 254 pound coins.  
She puts the pound coins into bags.  
There are 20 pound coins in each full bag of coins.

Sarah is going to take all her full bags of coins to the bank.  
She can only take up to 5 full bags of coins to the bank each day.

Sarah wants to go to the bank on as few days as possible.

On how many days will Sarah need to go to the bank?

.....  
**(Total for Question 300 is 3 marks)**

---

**\*301** Becky wants to buy a table and six chairs.

Three shops sell the same types of tables and chairs.

<b>Tables-R-Us</b>	
Table	£120
Total for 4 chairs	£120
Each extra chair	£40

<b>Fred's Furniture</b>	
Table	£120
Each chair	£32

<b>Tables 'n Chairs</b>	
Table	£120
Total for 2 chairs	£70

Becky wants to buy the table and six chairs from the same shop.  
She wants to pay the lowest total price.

Which shop should Becky buy the table and six chairs from?  
You must show all your working.

---

**(Total for Question 301 is 4 marks)**

**302** Susan and Joe are going on holiday.  
They can take two cases onto the plane free of charge if the total weight of the two cases is no more than 40 kg.

Susan's case has a weight of 22.8 kg.

Joe's case has a weight of 19.5 kg.

\*(a) Can they take their two cases onto the plane free of charge?

(2)

Susan and Joe want to be at the airport terminal at 14 30

It will take 1 hour and 20 minutes to drive from home to the airport.

It will then take a total of 30 minutes to park the car and go into the airport terminal.

(b) What is the latest time they can leave home?

.....  
(3)

**(Total for Question 302 is 5 marks)**

---

**303** Miss Martins is organising a school play.

The total cost of putting on the play is £960

The school pays £300 of this cost.

Miss Martins sells tickets to pay the rest of the cost.

Miss Martins sells 500 tickets.

Each ticket costs £4

Miss Martins has enough money to pay the rest of the costs and to give all the money left over to charity.

Work out how much money Miss Martins gives to charity.

£.....

**(Total for Question 303 is 4 marks)**

---

**304** Express 180 as a product of its prime factors.

.....  
(Total for Question 304 is 3 marks)

---

- 305** (a) Write these numbers in order of size.  
Start with the smallest number.

52      102      25      120      55

.....  
(1)

- (b) Write these numbers in order of size.  
Start with the smallest number.

6      -2      0      -5      3

.....  
(1)

- (c) Write these numbers in order of size.  
Start with the smallest number.

0.63      0.633      0.603      0.6      0.06

.....  
(1)

---

**(Total for Question 305 is 3 marks)**



**306** Here is part of a train timetable from Newcastle to London.

Newcastle	05 56	06 30	07 28
Durham	06 09	06 42	07 41
Darlington	06 28	07 00	07 59
York	06 56	07 33	08 27
Peterborough	08 11	08 41	09 48
London	09 08	09 39	10 45

A train leaves Newcastle at 05 56

(a) What time should this train get to London?

.....  
(1)

Matthew gets to the station in Darlington at 06 45  
He wants to catch the next train to York.

(b) How many minutes should he have to wait for this train?

..... minutes  
(1)

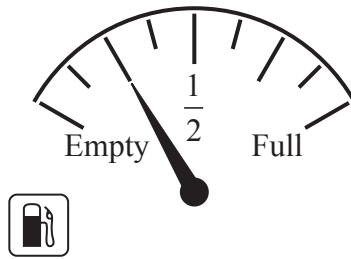
A train leaves Peterborough at 09 48

(c) How many minutes should this train take to get from Peterborough to London?

..... minutes  
(1)

**(Total for Question 306 is 3 marks)**

307 A petrol tank holds 48 litres of petrol when it is full.

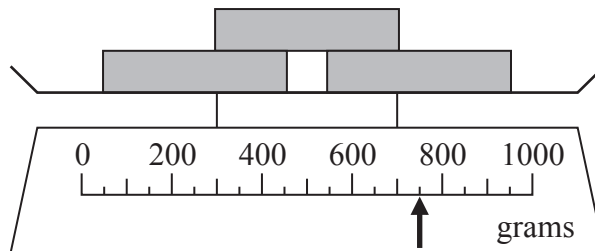


The scale shows information about how much petrol there is in the petrol tank.

(a) Work out the number of litres of petrol in the petrol tank.

..... litres  
(2)

The total weight of three boxes is shown on this weighing scale.



Each box has the same weight.

(b) Work out the weight of a box.

..... grams  
(3)

(Total for Question 307 is 5 marks)

308 You can use these rules to change temperatures from °C to °F.

**approximate rule**

$F = \frac{9}{5}C + 32$

**exact rule**

$F = \frac{9}{5}C + 32$

Co { "wugu"vj g"approximate rule"vq"ej cpi g"42 °E"vq"°H

F cp"wugu"vj g"exact rule"vq"ej cpi g"42 °E"vq"°H

(a) "Work out the difference between Amy's result and Dan's result.

..... °F  
(4)

Jade uses the **approximate rule** to change a temperature from °C to °F.  
The result is 110 °F.

(b) "What °C temperature did Jade change to °F?

..... °C  
(3)

(Total for Question 308 is 7 marks)

**309** A charity made an appeal for money.

The charity put the information shown below on a poster.

**Hunger appeal**

- £3 will buy 5 meals for one person.
- £100 will buy lunches for 80 school children for 5 days.

£3 will buy 5 meals for one person.

- (a) Work out the cost of one of the meals.  
Give your answer in pence.

..... p  
(2)

£100 will buy lunches for 80 school children for 5 days.

- (b) Work out the cost of buying lunch for one school child for one day.

.....  
(3)

**(Total for Question 309 is 5 marks)**

---

**310** Work out  $\frac{3}{5} - \frac{1}{3}$

.....  
**(Total for Question 310 is 2 marks)**

---

**311** 50 people each did one activity at a sports centre.

Some of the people went swimming.

Some of the people played squash.

The rest of the people used the gym.

21 of the people were female.

6 of the 8 people who played squash were male.

18 of the people used the gym.

9 males went swimming.

Work out the number of females who used the gym.

.....  
(Total for Question 311 is 4 marks)

**312** Mary buys three tickets for a theatre show.  
Each ticket costs £50

Mary also has to pay a booking fee.  
The booking fee is £2.50 per ticket.

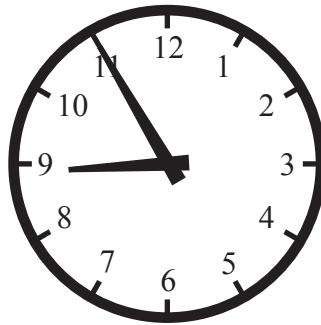
Work out the total amount Mary has to pay.

£.....

**(Total for Question 312 is 3 marks)**

---

313 Here is a clock in a school.



(a) (i) School starts 15 minutes earlier than the time shown on the clock.

What time does school start?

.....

(ii) The first lesson ends 45 minutes after the time shown on the clock.

What time does the first lesson end?

.....

(2)

(b) School finishes at 3.20 pm.

Write 3.20 pm using the 24-hour clock.

.....

(1)

**(Total for Question 313 is 3 marks)**



314 Here are four digits.

8      2      4      3

(a) (i) Use two of these digits to make the smallest possible two-digit number.

(ii) Use three of these digits to make the three-digit number closest to 300

.....  
(2)

Here are four different digits.

5      1      7      9

(b) (i) Put one digit in each box to make the largest total.  
You may only use each digit once.

		+		
--	--	---	--	--

(ii) Write down the total.

.....  
(2)

**(Total for Question 314 is 4 marks)**

---

315 (a) Work out  $15 \div 5 + 7$

.....  
(1)

(b) Work out  $2 + 7 \times 2$

.....  
(1)

(c) Work out  $-5 + -6$

.....  
(1)

(d) Work out  $14 - -3$

.....  
(1)

(e) Add brackets ( ) to make this statement correct.

$$12 - 2 \times 3 + 1 = 4$$

(1)

(f) Why does  $\frac{1}{4} = \frac{2}{8}$ ?

(1)

---

(Total for Question 315 is 6 marks)

**316** Valentina is going to have a meal.  
She can choose one starter and one main course from the menu.

<b>Menu</b>	
<b>Starter</b>	<b>Main course</b>
Soup	Beef
Prawns	Tuna
Mushrooms	Vegetarian

Write down all the possible combinations Valentina can choose.

.....

.....

.....

**(Total for Question 316 is 2 marks)**

**317** Aleena is planning a trip for people at her Youth Club.

Here are the costs for the trip.

Transport	£230
Insurance	£50
Other costs	£30
Entry fee	£14 per person

Aleena charges £18 per ticket for the trip.  
She sells 100 tickets.

Is there enough money from the ticket sales for Aleena to pay all the costs for the trip?  
You must show your working.

**(Total for Question 317 is 4 marks)**

**318** Write these numbers in order of size.  
Start with the smallest number.

0.6       $\frac{2}{3}$       65%      0.606

---

**(Total for Question 318 is 2 marks)**

---

**319** Rita is going to make some cheeseburgers for a party.  
She buys some packets of cheese slices and some boxes of burgers.

There are 20 cheese slices in each packet.

There are 12 burgers in each box.

Rita buys exactly the same number of cheese slices and burgers.

(i) How many packets of cheese slices and how many boxes of burgers does she buy?

..... packets of cheese slices

..... boxes of burgers

Rita wants to put one cheese slice and one burger into each bread roll.  
She wants to use all the cheese slices and all the burgers.

(ii) How many bread rolls does Rita need?

..... bread rolls

**(Total for Question 319 is 4 marks)**

320 The table shows some information about 6 caravans in a holiday park.

Caravan Name	Sleeps	Sea view	player	Weekly hire price
Chestnut	8	No	No	£709
Seal	4	Yes	Yes	£579
Puffin	6	Yes	Yes	£629
Tern	5	Yes	No	£539
Heron	4	No	Yes	£519
Pearl	4	No	Yes	£449

(a) Write down the number of caravans that sleep 6 people or more than 6 people.

.....  
(1)

(b) Write down the names of the caravans with a Sea view **and** a DVD player.

.....  
(1)

Mike wants to hire a caravan that sleeps exactly 4 people.

(c) Work out the difference between the highest weekly hire price and the lowest weekly hire price he could pay.

£.....  
(2)

Each caravan has a width of 12 feet.

(d) Use 1 foot = 30 centimetres to work out the width of a caravan.

Give your answer in metres.

..... metres  
(3)

(Total for Question 320 is 7 marks)

**321** At 7 am the temperature was  $-3^{\circ}\text{C}$ .  
By noon the temperature was  $11^{\circ}\text{C}$  higher.

(a) Write down the temperature at noon.

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

(1)

At 9 pm the temperature was  $-5^{\circ}\text{C}$ .  
By midnight the temperature had gone down by  $7^{\circ}\text{C}$ .

(b) Write down the temperature at midnight.

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

(1)

---

**(Total for Question 321 is 2 marks)**

**322** There is enough space for 80 boxes of cornflakes in a stockroom.

On Monday there are 65 boxes of cornflakes in the stockroom.  
On Tuesday 17 boxes of cornflakes are taken out of the stockroom.  
On Wednesday 29 boxes of cornflakes are put into the stockroom.

Work out how many more boxes of cornflakes can now be put into the stockroom.

.....

---

**(Total for Question 322 is 3 marks)**

**323** Here is part of a railway timetable.

New Street	10 13	10 30	10 33
Marston Green	10 26	↓	10 41
Birmingham International	10 29	10 39	10 45
Hampton-in-Arden	10 32	↓	10 48
Tile Hill	10 40	↓	10 55
Coventry	10 47	10 49	11 00

(a) Work out how long the 10 13 train takes to go from New Street to Coventry.

..... minutes  
(1)

Harry is at Birmingham International.  
He needs to be at Tile Hill by 11 00

(b) What time is the latest train from Birmingham International he can catch?

.....  
(1)

**(Total for Question 323 is 2 marks)**

---



**324** Fareeda has four types of fruit

- bananas
- apples
- pears
- oranges

Fareeda is going to choose 2 different types of fruit.

Write down all the possible combinations of fruit she can choose.

.....

.....

.....

.....

**(Total for Question 324 is 2 marks)**

**325** Here are the costs of pens in two shops.

<b>Shop</b> 3 pens for £2
------------------------------

<b>Shop</b> 5 pens for £3
------------------------------

Mrs Evans wants to buy 30 pens for the cheapest possible cost.

Which shop should she buy the pens from?

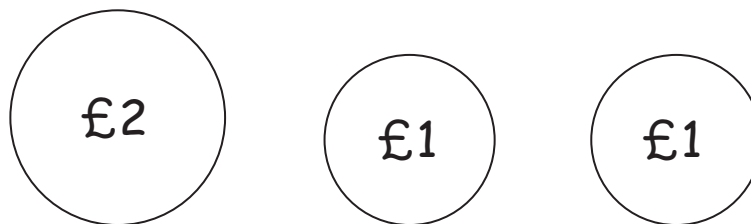
You must show all your working.

**(Total for Question 325 is 4 marks)**

326 An ice cream van has this price list.

Price List	
Choc Ice	£1.25
Tub	£1.15
Cone	85p

Mitch only has these three coins.  
He has no other money.



Mitch wants to buy a choc ice, a tub and 2 cones.

Has Mitch got enough money?  
You must show your working.

(Total for Question 326 is 3 marks)

**327** A ticket for a seat at a school play costs £2.95

There are 21 rows of seats.

There are 39 seats in each row.

The school will sell all the tickets.

Work out an estimate for the total money the school will get.

£.....

---

**(Total for Question 327 is 3 marks)**

**328** There are 40 people at a meeting.  
Each person travelled to the meeting either by car or by train.

13 of the people are male.  
10 females travelled by train.  
8 males travelled by car.

Work out the total number of people who travelled by car.

.....  
**(Total for Question 328 is 3 marks)**

---

**329\*** Sarah wants to buy some fruit.

She wants to buy

3 oranges at 30p each

and  $\frac{1}{2}$  kg apples at £1.20 per kg.

The only money Sarah has is one 50p coin and six 20p coins.

She pays for the fruit.

Work out how much money Sarah has left.

You must show all your working.

**(Total for Question 329 is 5 marks)**

**330** Here is a list of numbers.

1      2      4      5      7      11      13      14      15      17

From the list, write down **three different** prime numbers that add together to make 20

.....  
**(Total for Question 330 is 3 marks)**

**331** Trams leave Piccadilly

to Eccles every 9 minutes

to Didsbury every 12 minutes

A tram to Eccles and a tram to Didsbury both leave Piccadilly at 9 am.

At what time will a tram to Eccles and a tram to Didsbury next leave Piccadilly at the same time?

.....  
**(Total for Question 331 is 3 marks)**

**332** Work out  $1.83 \times 47$

.....  
**(Total for Question 332 is 3 marks)**

---

**333** (a) Work out 50% of 86

.....  
(1)

(b) Work out  $3 + 5 \times 2$

.....  
(1)

(c) Write down an estimate for  $\sqrt{60}$

.....  
(1)

---

**(Total for Question 333 is 3 marks)**

---



334 Here are the ticket prices for entry to a museum.

**Ticket prices**

Adult ticket £12

Child ticket £7

Senior ticket £8

Family ticket (2 adult tickets and 2 child tickets) £30

Shamus takes his family to the museum.

He gets tickets for

- 2 adults,
- 3 children,
- 1 senior.

Shamus pays the least possible amount of money for the tickets.

He pays with three £20 notes.

How much change should he get?

£.....

**(Total for Question 334 is 4 marks)**

335 Here is part of a bus timetable from Harrow Lane to Cartbridge Street.

**Harrow Lane to Cartbridge Street**

Harrow Lane	08 02	09 04	10 12	11 02	12 04	12 12
Elm Drive	08 19	09 21	10 29	11 19	12 21	12 29
Hamden Road	08 32	09 34	10 42	11 32	12 34	12 42
Swipe Crescent	08 41	09 43	10 51	11 41	12 43	12 51
Cartbridge Street	08 50	09 52	11 01	11 50	12 52	13 01

A bus goes from Harrow Lane to Cartbridge Street.

The bus leaves Harrow Lane at 08 02

(a) At what time should the bus get to Cartbridge Street?

.....  
(1)

J g'tg'ku'r ctv'qh'c"dwu'vko g'cdrg'htqo "Ectvdkf i g"Utggv'vq"J cttqy "Ncpg0'

**Cartbridge Street to Harrow Lane**

Cartbridge Street	13 11	14 14	15 07	16 11	17 14	18 07
Swipe Crescent	13 20	14 24	15 16	16 20	17 24	18 16
Hamden Road	13 29	14 33	15 25	16 29	17 33	18 25
Elm Drive	13 43	14 47	15 39	16 43	17 47	18 39
Harrow Lane	13 53	14 57	15 49	16 53	17 57	18 49

A bus goes from Cartbridge Street to Harrow Lane.

This bus leaves Hamden Road at 13 29

(b) Work out how many minutes this bus should take to go from Hamden Road to Elm Drive.

.....  
(1)

Peter lives in Harrow Lane.  
His grandmother lives in Swipe Crescent.

Peter visits his grandmother.  
He goes by bus from Harrow Lane to Swipe Crescent.

Peter wants to have at least 3 hours with his grandmother.  
He needs to be back at Harrow Lane by 16 00

\*(c) Plan Peter's journey to visit his grandmother and get back to Harrow Lane.  
You must include the times of the buses.

(4)

---

(Total for Question 335 is 6 marks)

**336** (a) Work out  $3^4$

.....  
(1)

(b) Write down the cube root of 64

.....  
(1)

**(Total for Question 336 is 2 marks)**

---

**337** Felicity asked 100 students how they came to school one day.  
Each student walked or came by bicycle or came by car.

49 of the 100 students are girls.

10 of the girls came by car.

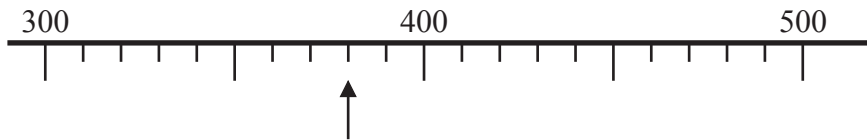
16 boys walked.

21 of the 41 students who came by bicycle are boys.

Work out the total number of students who walked to school.

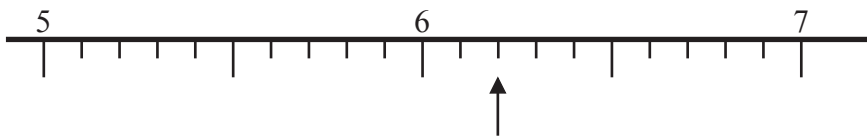
.....  
**(Total for Question 337 is 4 marks)**

---



(a) Write down the number marked by the arrow.

.....  
(1)



(b) Write down the number marked by the arrow.

.....  
(1)



(c) Find the number 34 on the number line.  
Mark it with an arrow (↑).

(1)

(Total for Question 338 is 3 marks)

**339** Daniel buys

one loaf of bread costing £1.18  
one tub of spread costing 94p  
**two** jars of strawberry jam.

Daniel pays with a £5 note.  
He gets 30p change.

Work out the cost of **one** jar of strawberry jam.

£ .....

**(Total for Question 339 is 3 marks)**

---

**340** Margaret is going to have a meal.  
She can choose one starter and one main course.

<b>Menu</b>	
<b>Starter</b>	<b>Main course</b>
Pate	Beef
Melon	Salmon
Ham	Lasagne

Write down all the possible combinations Margaret can choose.

.....

.....

.....

.....

.....

.....

.....

**(Total for Question 340 is 2 marks)**



341 (a) Write down the value of  $\sqrt{81}$

.....  
(1)

(b) Work out the value of  $5^2 + 2^3$

.....  
(2)

**(Total for Question 341 is 3 marks)**

---

342 Here is part of a train timetable from Birmingham to Leicester.

Birmingham	06 23	06 53	07 23	07 53
Coleshill	06 35	07 05	07 35	08 05
Nuneaton	07 00	07 22	07 51	08 22
Hinckley	–	07 29	07 58	08 29
Leicester	07 17	07 48	08 17	08 48

A train leaves Birmingham at 06 53

(a) (i) What time should this train get to Hinckley?

.....

(ii) How many minutes should this train take to get to Hinckley?

..... minutes  
(2)

Silvia wants to catch a train in Nuneaton.  
She needs to get to Leicester **before** 08 30

(b) Write down the time of the latest train Silvia can catch from Nuneaton.

.....

(1)

A train will leave Leicester at 07 27 for Stansted Airport.  
The train should take 2 hours 28 minutes to go from Leicester to Stansted Airport.

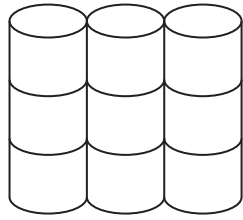
(c) What time should the train get to Stansted Airport?

.....

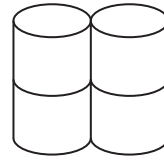
(1)

(Total for Question 342 is 4 marks)

343



Pack of 9  
toilet rolls  
£4.23



Pack of 4  
toilet rolls  
£1.96

A pack of 9 toilet rolls costs £4.23

A pack of 4 toilet rolls costs £1.96

Which pack gives the better value for money?

You must show all your working.

.....  
**(Total for Question 343 is 3 marks)**

**344** Buses to Acton leave a bus station every 24 minutes.  
Buses to Barton leave the same bus station every 20 minutes.

A bus to Acton and a bus to Barton both leave the bus station at 9 00 am.

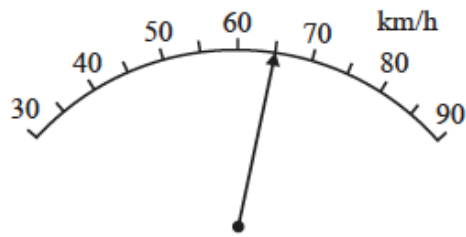
When will a bus to Acton and a bus to Barton next leave the bus station at the same time?

.....  
**(Total for Question 344 is 3 marks)**

---

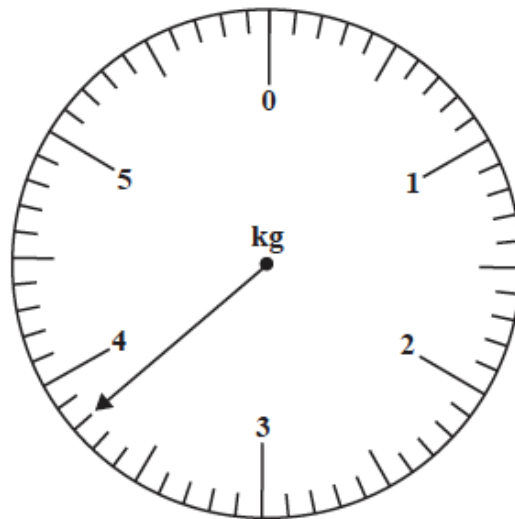
345 (a) Write down the reading on this scale.

(1)



..... km/h

The scale shows the weight of Sam's dog.



Sam's baby brother weighs 5 kg.

(b) Work out the difference in weight between Sam's baby brother and Sam's dog.

(2)

..... kg

**(Total for Question 345 is 3 marks)**

346 C'dwu'ugcva'69'r gqr rg0  
Cpqyj gt'8'r gqr rg'ecp'uxcpf 0

Vj gtg'ctg'66'r gqr rg'qp'yj g'dwu0  
Vj g'dwu'uxqr u0

: 'r gqr rg'i gv'qhh'yj g'dwu0  
3; 'r gqr rg'y cpv'vq'i gv'qp'yj g'dwu0

Ecp'yj g'dwu'j qrf'cm'yj g'r gqr rg'y j q'y cpv'vq'i gv'qp'yj g'dwuA  
Gzr rckp" { qwt'cpuy gt0



(Total for Question 346 is 3 marks)

569 Rctwlfj cu¥3020

Uj g'y cpvu'vq'dw{ 'c'f tlpn'c'pf 'uqo gj lpi 'vq'gc'0'

\*c+'Y j cv'ctg'y g'f hgtgpv'eqo dlpcv'qpu'uj g'ecp'dw{ A

(2)

## **Ben's Burger Bar Burgers**

Single burger £0.85

Single burger with cheese £0.95

Double burger £1.55

Double burger with cheese £1.70

### **Fries**

Regular £0.65

Large £0.99

### **Cola**

Regular £0.85

Large £1.10

### **Meal Deals**

#### **Regular**

Single burger with regular fries and regular cola £2.09

#### **Large**

Double burger with cheese large fries and large cola £3.49

Mgp"dw\ u"

4"f qwdrg"dwti gt u'y kj "ej ggug.

3"rcti g'ftkgu

cpf "3"rcti g"eqr0

J g'r c{ u'y kj "c"¥32"pqvg0

\*d+"J g'i gw'yj g'dguv'r tleg0

\*\*\*\*\*Y j cv'ej cpi g'uj qwf 'j g'i gvA

(3)

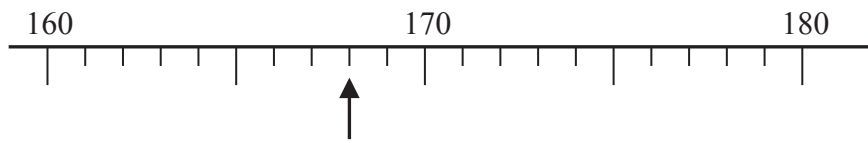


(Total for Question 347 is 5 marks)



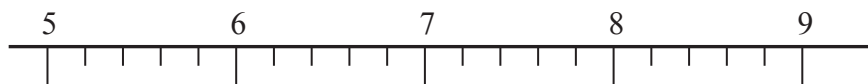
348 (a) Write the number 6458 correct to the nearest hundred.

.....  
(1)



(b) Write down the number marked by the arrow.

.....  
(1)



(c) Find the number 7.2 on the number line above.  
Mark the number with an arrow (↑).

(1)

**(Total for Question 348 is 3 marks)**

**349** The price of a calculator depends on the number of these calculators you buy.

The table gives information about the prices of this calculator.

Number of calculators	Price of each calculator
1–29	£3.85
30–99	£3.65
100 or more	£3.49

Mr Edwards wants to buy some of these calculators.

He has £200 to spend.

Work out the greatest number of calculators he can buy.

.....  
**(Total for Question 349 is 3 marks)**

350 Here is a menu.

Starter	Main course	dessert
Soup	Pizza	Fruit
Melon	Lasagne	Cheesecake
	Risotto	

Tina is going to choose one starter and **either** one main course or one dessert.

Write down all the possible combinations Tina can choose.

.....

.....

.....

**(Total for Question 350 is 2 marks)**

351 Ben hires some buses to take 768 people to a football match.  
Each bus can take 56 people.

Ben hires the least number of buses needed to take all 768 people.

Then 19 of the 768 people decide **not** to go to the football match.

Does Ben still need all the buses he has hired?

You must show how you get your answer.

**(Total for Question 351 is 3 marks)**

352 Here is part of a train timetable from Cambridge to London Kings Cross.

Cambridge	08 15	08 50	09 20	09 27	09 50
Royston	08 29	09 05	09 35	09 44	10 05
Letchworth	08 39	09 14	09 44	09 55	10 14
London Kings Cross	09 10	09 45	10 13	10 32	10 43

Matt is going to catch a train from Cambridge.  
He needs to get to Letchworth **before** 10 00

(a) Write down the time of the latest train Matt can catch from Cambridge.

.....  
(1)

The 09 35 train left Royston on time.

The train took 50 minutes to travel from Royston to London Kings Cross.  
The train was late when it got to London Kings Cross.

(b) How many minutes late?

..... minutes  
(2)

**(Total for Question 352 is 3 marks)**

---

, 353

**Best vans**

$\frac{1}{3}$  off normal price of  
£87 for each day

No charge for the miles

**Vans for hire**

£44 for each day"

**plus**

15p for each extra mile  
over 250 miles

Scott wants to hire a van for 2 days.  
He is going to drive 400 miles in the van.

Scott wants to pay the least possible money to hire the van.

Should Scott hire the van from Best vans or from Vans for hire?  
You must show all your working.

(Total for Question 353 is 5 marks)

**354** Write these numbers in order of size.  
Start with the smallest number.

$\frac{3}{7}$     41%    0.45     $\frac{2}{5}$     0.405

---

**(Total for Question 354 is 2 marks)**

---

- 355** There are 565 passengers on a train.  
143 of the passengers get off the train.  
109 passengers get on the train.

How many passengers are on the train now?

.....  
**(Total for Question 355 is 2 marks)**

- 356** At 5 am the temperature was  $-5^{\circ}\text{C}$ .  
By midday, the temperature had risen by  $7^{\circ}\text{C}$ .

(a) Work out the temperature at midday.

.....  $^{\circ}\text{C}$   
(1)

At 5 pm the temperature was  $9^{\circ}\text{C}$ .

(b) Work out the difference between the temperature at 5 am and the temperature at 5 pm.

.....  $^{\circ}\text{C}$   
(1)

**(Total for Question 356 is 2 marks)**

**357** Paula has £10 to spend on music downloads.  
Each music download costs 84p.

Paula buys as many music downloads as possible.

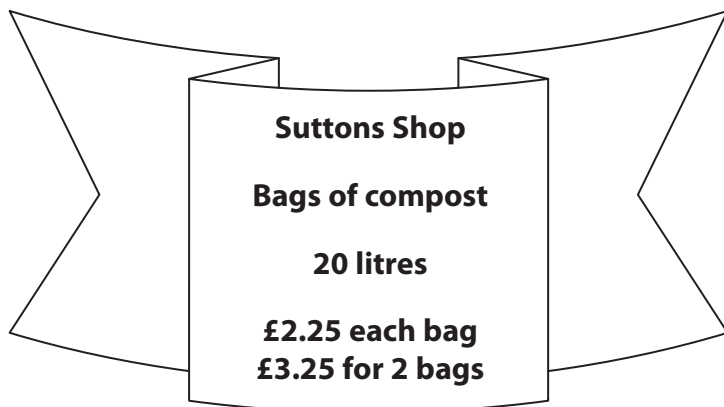
Work out how much money Paula has left.

.....  
**(Total for Question 357 is 3 marks)**

---



**358** Jane wants to buy some compost.  
Both Suttons Shop and Greens Garden Shop sell compost.



Jane needs 140 litres of compost.  
She wants to buy all the compost from the same shop.  
She wants to buy the compost as cheaply as possible.

Which shop should Jane buy the compost from?  
You must show all your working.

(Total for Question 358 is 4 marks)

**359** Here is a list of numbers.

4      5      30      31      39      49      72      100

From the list, write down

(i) a multiple of 8

.....

(ii) a factor of 50

.....

(iii) a prime number

.....

---

**(Total for Question 359 is 3 marks)**

**360** (a) Work out  $\sqrt{44.89}$   
You must give your answer as a decimal.

.....

(1)

(b) Work out  $\frac{1}{2.5^3}$   
You must give your answer as a decimal.

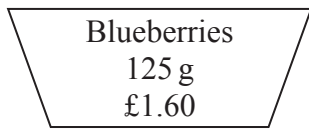
.....

(2)

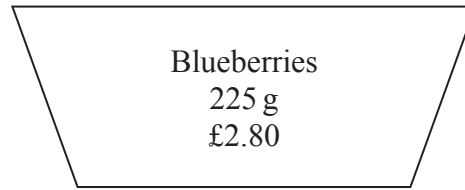
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**(Total for Question 360 is 3 marks)**

**\*361** Blueberries are sold in small cartons and in large cartons.



small carton



large carton

There are 125 g of blueberries in a small carton.  
Each small carton costs £1.60

There are 225 g of blueberries in a large carton.  
Each large carton costs £2.80

Which size of carton is the better value for money?  
You must show your working.

---

(Total for Question 361 is 3 marks)

**362** The table gives information about the cost of calls and the cost of texts for each of two mobile phone networks.

	<b>Telcom</b>	<b>Swish</b>
<b>Calls (per minute)</b>	8p	3p
<b>Texts (each)</b>	4p	2p

Last week Amir o cf g'52"o kpwgu'qh'ecmu'cpf 'ugpv'62'\gz u0

Amir used the Telcom network.

If Amir had used the Swish network, the total cost of his calls and texts would have been less.

How much less?

£ .....

**(Total for Question 362 is 3 marks)**

**363** (a) Find the value of  $\sqrt{7.29}$

.....  
(1)

(b) Find the value of  $21^3$

.....  
(1)

**(Total for Question 363 is 2 marks)**

---

\*364 A shop sells bags of crisps in different size packs.

There are

- 18 bags of crisps in a small pack
- 20 bags of crisps in a medium pack
- 26 bags of crisps in a large pack



Which size pack is the best value for money?  
You must show all your working.

---

(Total for Question 364 is 4 marks)

**365** A film starts at 1830  
The film ends at 2050

(a) How long does the film last?

.....  
(2)

Jan watches this film and then catches a bus home.

The bus leaves the bus stop 18 minutes after the film ends.  
The bus takes 24 minutes to get to Jan's home.

\*(b) Will Jan be home before 2130?  
You must show all your working.

(3)

**(Total for Question 365 is 5 marks)**

---

366 Here is a shopping bill.

Item	Cost
apples	£1.69
orange juice	98p
3 tins of peas at 37p each	.....
1 packet of cheese	£4.52
salmon	.....
<b>Total cost</b>	<b>£10.98</b>

(a) Complete the shopping bill by writing in the missing costs.

(3)

Pat wants to buy a book.  
The book costs £5.50

Pat has a voucher for £1.70  
She also has 3 pound coins and 3 twenty pence coins.  
She wants to buy the book with the voucher and the coins.

(b) Is this enough for Pat to buy the book?  
You must show all your working.

(3)

(Total for Question 366 is 6 marks)



**367** At 1am on Monday, the temperature in Oslo was  $-5^{\circ}\text{C}$ .  
At 1pm on Monday, the temperature in Oslo was  $12^{\circ}\text{C}$  higher than the temperature at 1am.  
At 1am on Tuesday, the temperature in Oslo was  $18^{\circ}\text{C}$  lower than the temperature at 1pm on Monday.

(a) Work out the temperature in Oslo at 1am on Tuesday.

..... $^{\circ}\text{C}$   
(2)

In Malaga, the temperature is  $18^{\circ}\text{C}$ .  
In Granada, the temperature is  $-6^{\circ}\text{C}$ .

(b) Work out the difference in temperature between Malaga and Granada.

..... $^{\circ}\text{C}$   
(2)

---

(Total for Question 367 is 4 marks)

**368** 10 adults stand in a queue.

6 of the adults have **no** children with them.  
The rest of the adults each have one child with them.

Work out the total number of adults and children in the queue.

.....

---

(Total for Question 368 is 2 marks)

**369** Use your calculator to work out

(a)  $\sqrt[3]{42.875}$

.....  
(1)

(b)  $\frac{3.4 \times 5.2}{2.6 - 0.39}$

.....  
(2)

**(Total for Question 369 is 3 marks)**

---

**370** Celina and Zoe both sing in a band.

One evening the band plays for 80 minutes.

Celina sings for 65% of the 80 minutes.

Zoe sings for  $\frac{5}{8}$  of the 80 minutes.

Celina sings for more minutes than Zoe sings.

Work out for how many more minutes.

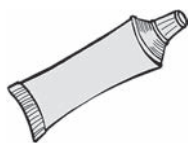
You must show all your working.

.....minutes

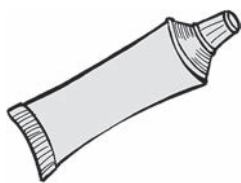
**(Total for Question 370 is 4 marks)**

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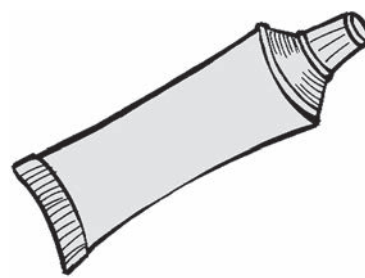
\*371 Toothpaste is sold in three different sizes of tube.



50ml



75ml



125ml

A 50ml tube costs £1.09

A 75ml tube costs £1.68

A 125ml tube costs £2.69

Which tube of toothpaste is the best value for money?  
You must show all your working.

---

(Total for Question 371 is 4 marks)

**372** Use your calculator to work out

(a)  $3.8 \times 4.5$

.....  
(1)

(b)  $\sqrt{1.69}$

.....  
(1)

(c)  $3.2^2$

.....  
(1)

---

**(Total for Question 372 is 3 marks)**

**373** A Youth Club is having a quiz night.

There will be 17 teams at the quiz night.

There will be 4 people in each team.

There will also be 3 people to organise the quiz.

Each person at the quiz will need a chair.

Work out the number of chairs needed.

.....  
**(Total for Question 373 is 2 marks)**

**374** A school bus takes students between 3 different schools.

The bus leaves school A.

There are 16 students on the bus.

The bus then goes to school B.

At school B, 13 students get off the bus and 4 students get on the bus.

The bus then goes to school C.

At school C, 5 students get off the bus and 7 students get on the bus.

How many students are now on the bus?

.....  
**(Total for Question 374 is 3 marks)**

---

**\*375** Here is part of Dani's electricity bill.

### Electricity Bill

New reading	2968 units
Old reading	2675 units
Price per unit	18p

Work out how much Dani has to pay for the units of electricity she has used.

---

**(Total for Question 375 is 4 marks)**

**376** Here is a list of numbers.

1    2    4    5    8    9    12    15    16

(a) From the list, write down a prime number.

.....  
(1)

(b) From the list, write down **three** square numbers that add to make 21

..... , ..... , .....  
(2)

**(Total for Question 376 is 3 marks)**

**377** 4.5 kg of oranges and 3 kg of apples cost a total of £ 3.87  
2.5 kg of oranges cost £ 1.40

Work out the cost of 1 kg of apples.

..... p

**(Total for Question 377 is 4 marks)**



378 (a) Write  $\frac{7}{10}$  as a decimal.

.....  
(1)

(b) Write 0.45 as a percentage.

.....%

(1)

(c) Write 30% as a fraction.  
Give your fraction in its simplest form.

.....  
(2)

(d) Write the number 2.738 correct to 2 decimal places.

.....  
(1)

---

**(Total for Question 378 is 5 marks)**

379

**Stan's Driving School**

First two lessons £12.75 each lesson

All other lessons £20.00 each lesson

Alex has 5 lessons with Stan's Driving School.

(a) Work out the total cost.

£.....  
(2)

Leah has some lessons with Stan's Driving School.

The total cost of the lessons is £305.50

(b) Work out how many lessons Leah has.

.....  
(3)

**(Total for Question 379 is 5 marks)**

380 Here are parts of two train timetables.

<b>Melton Mowbray to Peterborough</b>				
Melton Mowbray	06 31	06 53	07 34	08 34
Oakham	06 43	07 05	07 45	08 45
Stamford	06 57	07 19	08 01	09 01
Peterborough	07 10	07 33	08 16	09 16

<b>Peterborough to York</b>					
Peterborough	07 05	07 45	07 58	08 15	09 15
Newark	07 37	—	08 30	08 43	09 43
Doncaster	08 09	—	09 00	09 09	10 09
York	08 31	08 50	09 27	09 32	10 32

James lives in Stamford.  
He is going to a meeting in York.

James will travel by train from Stamford to Peterborough.  
He will then travel by train from Peterborough to York.

It will take James 30 minutes to walk from the station in York to his meeting.

His meeting starts at 10 00

Plan a schedule for his journey to York.

<b>Schedule</b>	<b>Time</b>
Train leaves Stamford	
Train arrives in Peterborough	
Train leaves Peterborough	
Train arrives in York	
James arrives at meeting	

(Total for Question 380 is 3 marks)

**381** Work out the value of  $\sqrt{14.44} \times (7.3 - 2.45)^2$

Write down all the figures on your calculator display.

.....

**(Total for Question 381 is 2 marks)**

---

**382** Edwin goes to a restaurant with some friends.

Here are the meals they have

2 fish and chips at £9.25 each

1 chicken and chips at £9.50

1 roast lamb at £10.55

4 puddings at £4.55 each.

Edwin pays for the meals with three £20 notes.

How much change should Edwin get?

£.....

**(Total for Question 382 is 3 marks)**

---

**383** Work out the number that is halfway between 2.9 and 3.6

.....

**(Total for Question 383 is 1 mark)**

---

**384** 28 569 people watch a football match.

(a) Write 28 569 to the nearest hundred.

.....

**(1)**

(b) Write down the value of the **2** in the number 28 569

.....

**(1)**

5619 of the 28 569 people are female.

(c) Work out the number of males.

.....

**(1)**

**(Total for Question 384 is 3 marks)**

---

**385** The table shows the names of five of Janette's friends.

<b>Boys</b>	<b>Girls</b>
Dodi	Anna
James	Michelle
William	

Janette is going to play a team game.  
She chooses one of the boys and one of the girls to be in her team.

Write down all the possible combinations Janette can choose.

.....

.....

.....

**(Total for Question 385 is 2 marks)**

**386** Sarah wants a music magazine each month for a year.

She can

pay £3.50 each month

or

pay £37.20 for the year.

Sarah pays £37.20 for the year.

How much cheaper is this than paying £3.50 each month?

£.....

**(Total for Question 386 is 3 marks)**

**387** Angie is organising a party for 84 adults and 42 children.

At 8 pm all the adults and all the children will sit down at tables for a meal.  
6 people will sit at each table.

(a) Work out the number of seats and the number of tables Angie will need.

..... seats

..... tables

(3)

Each adult meal will cost £4.50

Each child meal will cost £2.50

Angie has £500 to pay for the meals.

(b) Does Angie have enough money to pay for the meals for 84 adults and 42 children?  
You must show all your working.

.....  
(3)

**(Total for Question 387 is 6 marks)**

**388** Here is a list of numbers.

2      3      4      12      13      14      15      22      24

(a) From this list, write down

(i) a factor of 6

(ii) a multiple of 6

.....  
.....  
(2)

Demelza says,

“All prime numbers are odd numbers”.

(b) Demelza is wrong.  
Explain why.

.....  
.....  
(1)

**(Total for Question 388 is 3 marks)**



**389** A film starts at 17 50  
The film ends at 19 30

(a) How long does the film last?

.....  
(2)

Jackie buys some tickets to see the film.  
Each ticket costs £4.50  
Jackie pays with two £20 notes.

Jackie gets £8.50 change.

(b) How many tickets did Jackie buy?

.....  
(3)

**(Total for Question 389 is 5 marks)**

---

**390\*** Brian makes egg cups.  
He makes 12 egg cups per hour.

Brian makes egg cups for  $4\frac{1}{2}$  hours each day, on 5 days of the week.

The egg cups are packed in boxes.  
8 egg cups are packed into each box.

How many boxes are needed for all the egg cups Brian makes in 5 days?

---

(Total for Question 390 is 4 marks)

**391\*** Plants are sold in three different sizes of tray.

A small tray of 30 plants costs £6.50

A medium tray of 40 plants costs £8.95

A large tray of 50 plants costs £10.99

Kaz wants to buy the tray of plants that is the best value for money.

Which size tray of plants should she buy?

You must show all your working.

---

**(Total for Question 391 is 4 marks)**

**392** (a) Use your calculator to work out  $5.9^2$

.....  
(1)

(b) (i) Use your calculator to work out  $\sqrt{500} + 12.8$

Write down all the figures on your calculator display.  
You must give your answer as a decimal.

.....  
(ii) Write your answer to part (i) correct to 1 decimal place.

.....  
(2)

**(Total for Question 392 is 3 marks)**

---

**393** There are 130 adults at a language school.  
Each adult studies one of French or Spanish or German.

96 of the adults are women.

12 of the women study French.

73 of the adults study Spanish.

55 of the women study Spanish.

9 of the men study German.

How many of the adults study French?

.....  
(Total for Question 393 is 4 marks)

**394** Here is a list of numbers.

11    12    13    14    15    16    17    18    19    20

From the list, write down

(a) a factor of 24

.....  
(1)

(b) a multiple of 7

.....  
(1)

(c) a square number

.....  
(1)

**(Total for Question 394 is 3 marks)**

---

**\*395** Angela and Michelle both work as waitresses at the same restaurant.

This formula is used to work out the total amount of money each waitress gets.

$$\text{Total amount} = \text{£}6.50 \times \text{number of hours worked} + \text{tips}$$

The table shows the number of hours Angela and Michelle each worked last Saturday. It also shows the tips they got.

	<b>Number of hours worked</b>	<b>Tips</b>
<b>Angela</b>	8	£12
<b>Michelle</b>	7	£15

Who got the higher total amount of money last Saturday?  
You must show clearly how you got your answer.

**(Total for Question 395 is 4 marks)**

396 The table shows the prices of drinks at Ed's Cafe.

Ed's Cafe			
	Small	Regular	Large
<b>Black coffee</b>	£1.40	£1.80	£2.20
<b>Cappuccino</b>	£1.60	£2.10	£2.60
<b>Latte</b>	£1.60	£2.10	£2.60
<b>Tea</b>	£1.20	£1.50	£1.80
<b>Cola</b>	£1.50	£2.00	£2.40

Helen buys  
2 small black coffees  
1 regular cappuccino  
1 large cola

Helen pays with a £10 note.

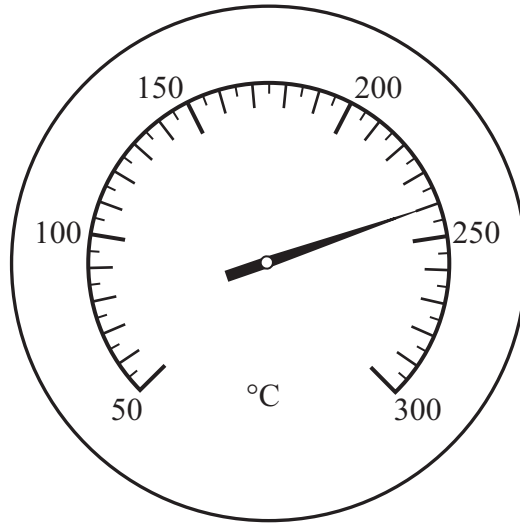
Work out how much change Helen should get.

£.....  
(3)

(Total for Question 396 is 3 marks)



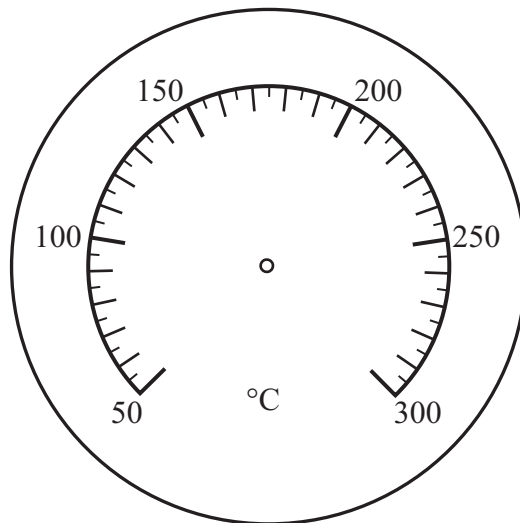
397 The diagram shows the temperature in an oven.



(a) Write down the temperature.

..... °C  
(1)

(b) On the diagram below, draw an arrow to show a temperature of 125 °C.



(1)

Lorna switches her oven on at 5.50 pm.  
She sets the temperature at 180 °C.  
It takes 15 minutes for the oven to reach a temperature of 180 °C.

(c) What time will the oven reach a temperature of 180 °C?

.....  
(1)

(Total for Question 397 is 3 marks)

- 398** 72 people are on a bus.  
15 people get off the bus.  
9 people get on the bus.

How many people are now on the bus?

.....  
**(Total for Question 398 is 2 marks)**

- 399** Mrs Clark shares £20 between Sally, Bethan, Robert and Tom.

Mrs Clark gives £6.65 to Sally.  
She shares the rest of the money equally between Bethan, Robert and Tom.

How much money does Mrs Clark give to Bethan?

£.....

**(Total for Question 399 is 3 marks)**

**400** Here is a list of numbers.

5      15      30      50      60      90      100      125

From the numbers in the list, write down

(i) two different numbers that add up to an even number

..... , .....

(ii) a multiple of 20

.....

(iii) a factor of 45

.....

(iv) a cube number

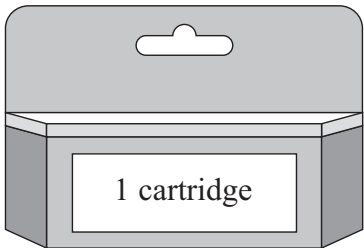
.....

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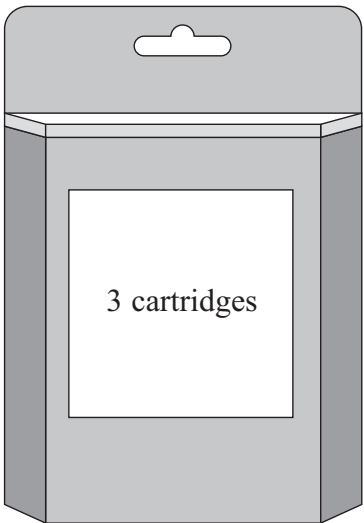
**(Total for Question 400 is 4 marks)**

401 George is going to buy exactly 10 ink cartridges.

**Ink Cartridges**



£9.39 per cartridge



£24.30 for a pack of 3 cartridges

Find the difference in cost between the cheapest way and the most expensive way to buy the 10 ink cartridges.

.....  
(Total for Question 401 is 5 marks)

402 (a) (i) Work out  $3.2^2 + \sqrt{7.5}$

Write down all the figures from your calculator display.

.....  
(ii) Write your answer to (a)(i) correct to 2 significant figures.

.....  
(2)

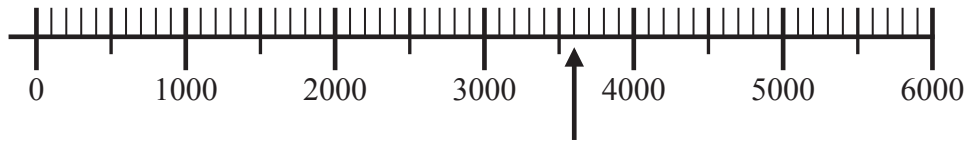
(b) Work out the value of  $10^5$

.....  
(1)

**(Total for Question 402 is 3 marks)**

---

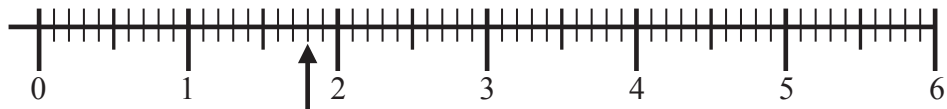
403 (a)



Write down the number marked by the arrow.

.....  
(1)

(b)



Write down the number marked by the arrow.

.....  
(1)

(c)

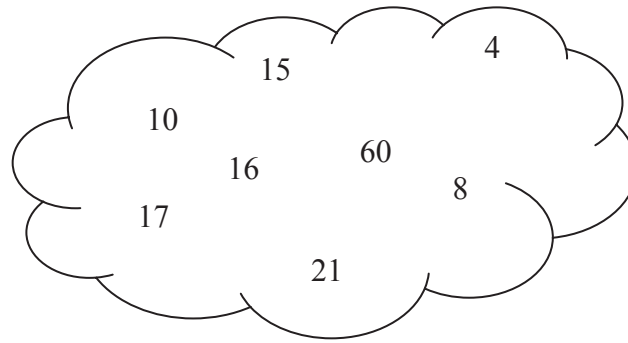


Find the number 3.6 on the number line above. "" "" .....

Mark the number with an arrow (↑).

(1)

(Total for Question 403 is 3 marks)



From the numbers in the cloud,

(a) write down a square number,

.....  
(1)

(b) write down a multiple of 7,

.....  
(1)

(c) write down a factor of 30

.....  
(1)

**(Total for Question 404 is 3 marks)**

---

**405** You can use this rule to work out the total charge for hiring a concrete mixer.

$$\text{Total charge} = \text{£}30 \text{ plus } \text{£}8 \text{ each day}$$

Esmé hired a concrete mixer for 4 days.

(a) Work out the total charge.

£ .....  
(2)

William also hired a concrete mixer.

The total charge was £110

(b) Work out how many days William hired the concrete mixer for.

..... days  
(3)

**(Total for Question 405 is 5 marks)**



\*406 The table gives information about the costs of posting parcels.

Maximum weight of a parcel	Cost
2 kg	£4.41
4 kg	£7.06
6 kg	£9.58
8 kg	£11.74
10 kg	£12.61
20 kg	£14.69

Umar has to post some parcels.

He has to post

- 3 parcels with a weight of 6 kg each
- 1 parcel with a weight of 10 kg
- 1 parcel with a weight of 3 kg
- 1 parcel with a weight of 1.2 kg

Umar has £55 to spend on posting the parcels.

Can he post all the parcels?

(Total for Question 406 is 4 marks)

**407** It takes Tom 1 hour to lay 30 bricks.  
He has to lay 180 bricks.

Tom starts to lay the bricks at 9 am.  
He has half an hour break at 11 am.  
He has another half an hour break at 1 pm.

What time should Tom finish laying the 180 bricks?

.....  
**(Total for Question 407 is 3 marks)**

**408** Use a calculator to work out

$$\frac{\sqrt{20.4}}{6.2 \times 0.48}$$

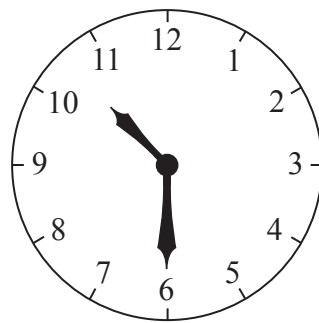
Write down all the figures on your calculator display.  
Give your answer as a decimal.

.....  
**(Total for Question 408 is 2 marks)**

**409** Jalin has a £10 note to spend on stickers.  
A packet of stickers costs 79p.  
He buys as many packets of stickers as possible.  
Work out how much change Jalin should get.

.....  
**(Total for Question 409 is 3 marks)**

**410** (a) Write down the time shown on this clock.



.....  
**(1)**

(b) Write 4 10 pm using the 24-hour clock.

.....  
**(1)**

Ed goes to the gym on his way to work.  
He takes 15 minutes to walk from his home to the gym.  
He will be at the gym for 1 hour.  
Ed takes 10 minutes to walk from the gym to work.  
Ed needs to be at work at 8 15 am.

(c) What is the latest time he can leave home?

.....  
**(2)**

**(Total for Question 410 is 4 marks)**

**411** Michael writes down 4 different factors of 60

He adds the 4 factors together.

He gets a number greater than 20 but less than 35

What 4 factors could Michael have written down?

.....  
**(Total for Question 411 is 3 marks)**

**\*412** Potatoes cost £9 for a 12.5 kg bag at a farm shop.

The same type of potatoes cost £1.83 for a 2.5 kg bag at a supermarket.

Where are the potatoes the better value, at the farm shop or at the supermarket?

You must show your working.

**(Total for Question 412 is 4 marks)**