Question 1

Felix and Marmalade are two cats.

Together they weigh 10kg.

Felix weighs 4kg more than Marmalade.

How much does Marmalade weigh?

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One of the angles in a trapezium is 43°

What is the sum of the three remaining angles?

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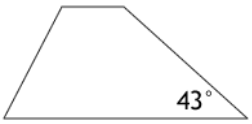
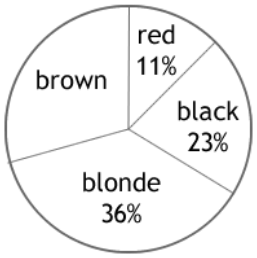


Question 3

The results of a survey of the hair colour of 800 people are shown in this pie chart.

How many people had brown hair?



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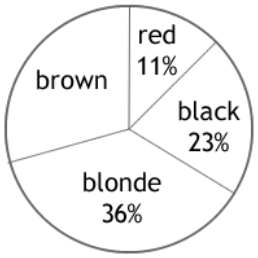
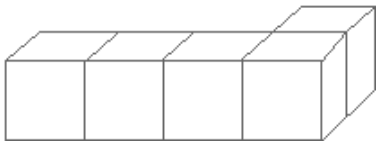


Question 4

I have five cubes all the same size. I glue them together to form an 'L' shape and place on a table. I then paint all of the faces that I can see.

How many faces do I paint?



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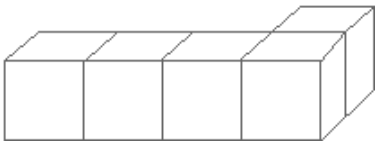
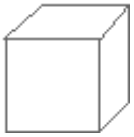


Question 5

How many pairs of parallel faces are there on a cube?



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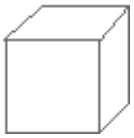

Question 6

Two positive numbers have a product of 90 and a difference of 9.

What is their sum?

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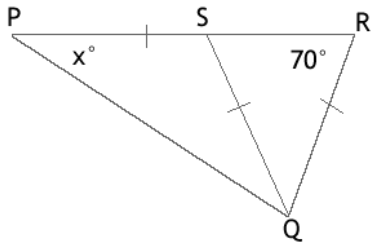
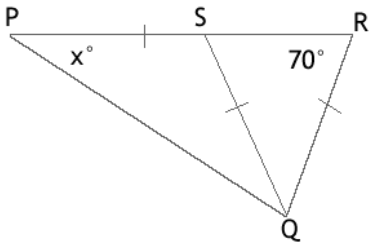


What is the size of the angle marked x°?

Question 7



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Question 8

Alice in Wonderland pours 10 litres of treacle into 25 identical teapots for the Mad Hatter and fills each of them.

How much treacle is in each pot?

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Question 9

Henry has forgotten the last of the four digits of the code for his bike lock. He knows that the first three digits are 451 and the code is a multiple of 3, but is not a multiple of 5 or 9.

What is the last digit?

4	5	1	?

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Question 10

Jenny was picking strawberries in a field.

When she dropped her bowl, one third of the strawberries were eaten by wasps, one quarter by ants and one sixth by a maggot.

What fraction of the strawberries was left?

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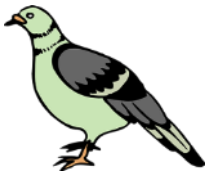
Question 11

Lara is a ladybird and weighs 0.02g

Sammy is a pigeon and weighs 2.02kg.

How many times heavier than Lara is Sammy?



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Question 12

Which are prime numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Question 12

Which are prime numbers

1	2	3	4	5	6	7	8	9	10
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21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Question 13

What is the:

a) Highest common factor of 6 and 15?
b) Lowest common multiple of 4 and 10?
c) LCM and HCF of 4 and 6?
d) HCF of 6, 10 and 12?

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Question 14

Which of these calculations gives the largest answer:

a) $1 - 2 + 3 + 4$
b) $1 + 2 - 3 + 4$
c) $1 + 2 + 3 - 4$
d) $1 + 2 - 3 - 4$
e) $1 - 2 - 3 + 4$

Question 14

Which of these calculations gives the largest answer:

a) $1 - 2 + 3 + 4$
b) $1 + 2 - 3 + 4$
c) $1 + 2 + 3 - 4$
d) $1 + 2 - 3 - 4$
e) $1 - 2 - 3 + 4$

Question 15

It has just turned 22:22 hours.

How many minutes are there until midnight?

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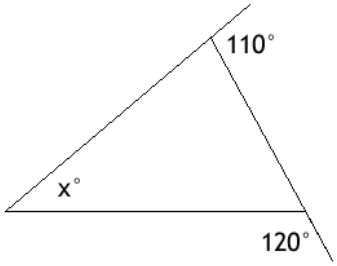
Question 16

Calculate the size of angle *x*.



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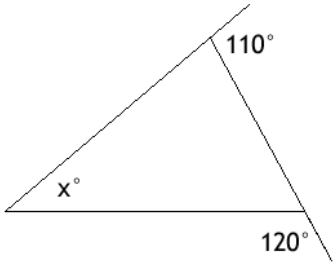

Question 17

In the expression

1 ☐ 2 ☐ 3 ☐ 4

Each ☐ is to be replaced by either + or x.

What is the largest value of all the expressions that can be obtained in this way?

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Question 18

What is the smallest prime number that is the sum of three different prime numbers?

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Question 19

Jack and Jill played a game for two people. In each game, the winner was awarded 2 points and the loser 1 point. No games were drawn.

Jack won exactly 4 games and Jill had a final score of 10 points.

How many games did they play?

Question 19

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Question 20

A fish weighs 3kg plus a third of its own weight.

What is the weight of the fish in kilograms?

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What is the weight of the fish in kilograms?

Question 21

Harry repairs computers.

He charges £56.80 for the first hour he works on the computer and £42.50 for each extra hour's work.

If he charges a total of £269.30, how many hours did he work on this computer?

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Question 22

In 2016, Cardiff Chess Club's total income came from a council grant and members' fees.

Council grant = £50
Members' fees = 240 at £5 each

Work out the total income of the club for 2016

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Question 23

Every day, a quarter of a million babies are born in the world.

Write a quarter of a million in figures.

Work out the number of babies born in 28 days. Give your answer in millions.

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Question 24

The cost of using a school photocopier is given by the rule:

the cost of one copy is 4p

cost of using the photocopier	=	number of copies	×	cost of one copy

Jerry makes 96 copies.

How much will Jerry need to pay?

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Question 25

At what time does the train leave Coventry?

Station	Time of Leaving
Crewe	08 00
Wolverhampton	08 40
Birmingham	09 00
Coventry	09 30
Rugby	09 40
Milton Keynes	10 10

The train arrives in London at 10:45

How long should the train take to travel from Crewe to London?

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Question 26

Kim buys a cup of coffee and a roll.

She pays with a £5 note.

How much change will she get?

Pete's Café

Price List

Cup of Tea	75p
Cup of Coffee	85p
Can of Cola	75p
Roll	£1.70
Sandwich	£1.35

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Question 27

Danny shares a bag of 20 sweets with his friends.

He gives George 3/5 of the sweets.

He gives Dipak 1/10 of the sweets.

He keeps the rest for himself.

How many sweets does Danny keep for himself?

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Question 28

The cost of 20 litres of petrol is £19.50

Work out the cost of 1 litre.

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Question 29

Michael went to America on holiday

He changed £200 into Dollars.

The exchange rate was £1 = $1.40

How many dollars did he get?

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Question 30

Michael was returning from his holiday in America.

He had $10.64 left and wanted to change it back into pounds.

The exchange rate is £1 = $1.33

How many pounds did he get?

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