



مدرسة البحث العلمي
SCHOOL OF RESEARCH SCIENCE

Maths GL Revision 2022

Reasoning

1. Complete the sequence below

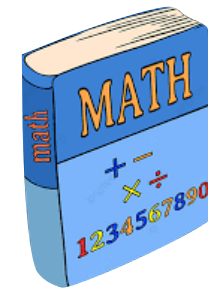
7	12	17		
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1b. Which 3 numbers will be in the sequence? Circle the correct 3

32	55	57	70	437	505
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2. 78 divided by 5 is 15.6

If maths books cost £5 each, how many can you buy with £78?



2b) 78 divided by 5 is 15.6

Teams are organised into groups of 5. How many teams can be made with 78 people?

2c) 78 divided by 5 is 15.6

£78 is split between 5 people. How much do they get each?

3.

You post 1 parcel weighing 170 grams and
2 parcels each weighing 320 grams.

How much does it cost altogether?

Move the cards to show how to work it out.
Then click and type in the answer.

Parcel post price list	
Weight of parcel	Price
0-100g	£0.75
101-250g	£1.09
251-500g	£1.46
501-750g	£2.07

= £

£0.75

£1.09

£2.07

£1.46

170g

320g

1

2

×

×

+

+

-

÷

4. Martin has 12 sweets.

a. He has 3 red, 6 blue, 1 yellow and 2 green sweets.

What fraction of his sweets are red?

b. What fraction of his sweets are **not** red?

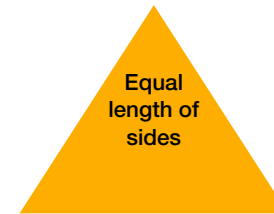
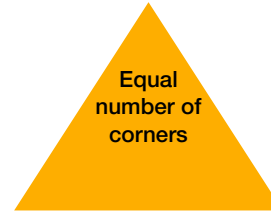
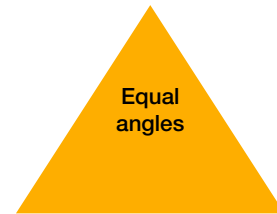
5. Sam, Timothy and Sarah also have 12 sweets each.

a. One quarter of Sam's sweets are blue. How many blue sweets does he have?

b. Who has the most blue sweets?

	Martin	Sam	Timothy	Sarah
Fraction of blue sweets	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{3}$

6. What are the properties of an equilateral triangle? Circle the correct answers.



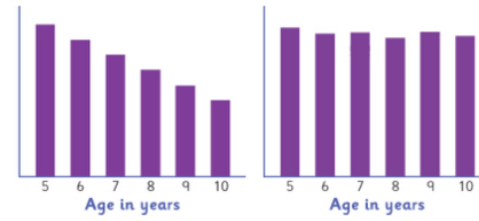
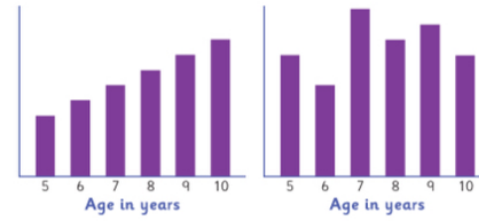
7.

These graphs show information about pupils at the Hill School. They are 5 to 10 years old.

Unfortunately, the labels have been lost.

Which graph shows the total number of pupils of each age?

Clue: There are about the same number of pupils of each age.



8.

Put the correct sale price labels on these football shirts.



Man Utd Shirt

WAS £27
Now one
third off!



Arsenal Shirt

WAS £27
Only 80% of
the original price!



England Shirt

WAS £27
One quarter
off the price!



Liverpool Shirt

WAS £27
Reduced by
10%!

£20.25

£21.60

£24.30

£18

9.

In Rhys's class, there are twice as many girls as boys.
There are 18 girls.

How many pupils are in the class altogether?

Move the cards to show how to work it out.
Then click and type in the answer.

=

18	18	1	1	2	2	3	3		
		×	×	+	+	-	-	÷	÷

10a) How much money does Ahmed have?

10b) If pencils cost 35p each, how many pencils can he buy?

10c) How much change will he have?



11a) The distance between Dubai and Abu Dhabi is 138km.

Mr John travels from Dubai to Abu Dhabi and then Abu Dhabi back to Dubai.

How many km does he travel altogether?

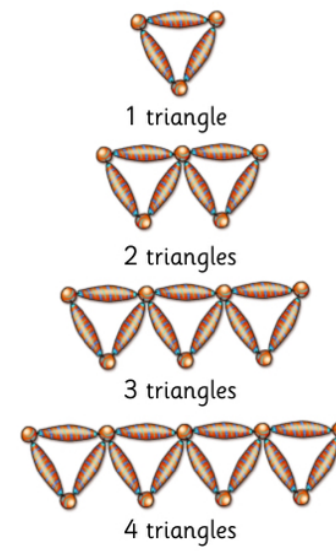


12)

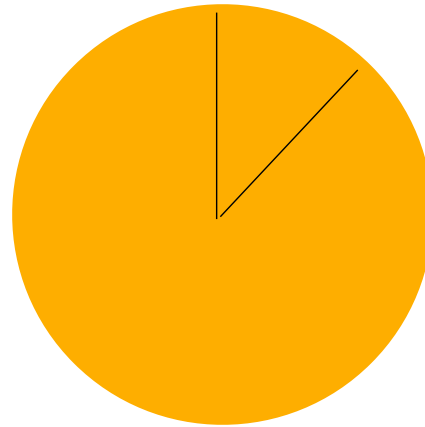
Sandy makes necklaces using beads.
She makes them into triangular patterns like this:

Fill in the missing numbers in the table.

Number of triangles	Number of long beads	Number of round beads
1	3	3
2	6	5
3	9	7
4		



13) A circle is split into 10 even angles. What is the measurement of each angle?



14)



Mina's card

2	28	36	4
12	18	5	10
9	10	6	8
3	20	7	40

Rules for Factor Bingo
 The computer shows a number.
 Players cross out all the **factors** of that number.
 The first person to cross out all of their numbers wins.

Holly's card

1	40	20	14
2	15	18	6
5	7	11	3
13	4	8	9

Mina and Holly are playing Factor Bingo.

The computer is showing the number 8.
 Holly has forgotten to cross off one factor of 8.

Click on it.

14) Can you add brackets to the following number sentences to make them correct.

$$3 + 4 \times 5 = 35$$

$$14 - 7 + 2 = 5$$

15) Can you convert these fractions to decimals and place them in ascending order.

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

$$\frac{1}{3}$$

$$\frac{3}{4}$$

$$\frac{2}{3}$$

16)

Mr Paul is baking a cake.

75 grams is butter

110 grams is flour

80 grams is sugar

What fraction of the ingredients is butter?

17)

For every 75 grams of butter there is 80 grams of sugar. What is the ratio of butter to sugar in its simplest form?

18)

This rule will help you work out children's average weekly pocket money.

To calculate pocket money in pounds, add 3 years to the age and divide the answer by 2.

a What is the average pocket money for a 9 year old?

£

19) To calculate pocket money in pounds, add 3 years to the age and divide the answer by 2.

Which of the following rules shows how to work out the average pocket money, P , for a child n years old?

$$P = n + 3 \div 2$$

$$P = (n + 3) \div 2$$

$$P = (n + 2) \div 3$$

$$P = n \div 3 + 2$$

20)

A charity says:

For every pound you give, we spend
75p on charity work,
24p on advertising and
1p on office work.

The pie chart shows how the charity spends
the money.

Move the labels to the correct places.

Office work	Charity work
Advertising	

