

Logic Round

Five teachers work in a school. By using the clues in the statements below, you need to work out what subject the teacher teaches and what sport they like, and information about their classroom, including the room name and number, and the colour of the classroom door.

On the answer grid you have already been given the teachers' names in the correct places.

- Mr Smith teaches Art.
- The Science teacher is in the classroom called 'Square'.
- History is taught by Miss Jones.
- The favourite sport of Mr Henry does not involve a ball.
- Mrs Talbot's classroom door is coloured yellow and is next to the classroom that has the largest single digit prime number as its number.
- The Maths teacher has the largest classroom door number.
- The favourite sport of the teacher in the classroom called 'Triangle' is netball.
- Miss Jones' door is coloured orange.
- The teacher in the classroom called 'Circle' is next to the Maths teacher.
- English is taught in the classroom called 'Sphere'.
- The classroom door numbered 3 is next to the teacher who is next to the teacher whose favourite sport is jogging.
- Football is the favourite sport of the teacher in the classroom called 'Cylinder'.
- The teacher in the classroom called 'Square' is next to the classrooms with the green and orange doors.
- The classroom called 'Cylinder' is next to the classroom of the Science teacher.
- English is taught in the classroom with the 'unlucky' prime number.
- The classroom door of the Maths teacher is green.
- The classroom numbers of Mrs Talbot and Mrs Richard add up to 30.
- All the classroom door numbers are prime numbers.
- The English teacher is next to a classroom that is next to the classroom of the Science teacher.
- The teacher in the classroom with the red door likes rugby and is next to the maths teacher.
- The sum of all the classroom door numbers is 51.
- The teacher in the classroom named 'Sphere' likes cricket.
- The classroom called 'Triangle' is next door to the classrooms of the Art and Science teachers.
- One of the classrooms has a white door.

Logic Round Answer Sheet

School Name: _____

School Number: _____

	Mr. Smith	Mrs. Richard	Mr. Henry	Miss Jones	Mrs. Talbot
Name of classroom					
Door number					
Door colour					
Teacher's subject					
Teacher's favourite sport					

Two marks awarded for each correct answer

Total marks (out of 50):

The great race

Activity 1

14 cards

The Great Race

Find the finishing
order of the cars

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The Great Race

There are nine
cars in the race

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All the cars
finished the race

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The Great Race

The white car finished six
places behind the blue car

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The Great Race

The orange car finished
between the green and the
yellow cars

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The Great Race

It was raining on
the day of the race

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The Great Race

Only one car finished
ahead of the blue car

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The Great Race

The yellow car was
in the middle of the
order of finishing

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The Great Race

The purple car finished
behind the white car

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The Great Race

The green car finished
ahead of the black car

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The Great Race

The pink car finished
between the yellow
and black cars

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The average speed of the
race was 102mph

The red car finished
four cars ahead of the
yellow car

CUT OUT

The green car finished
before the yellow car

Mystery symbols

Activity 7a

1 card

Mystery symbols 7a

Each symbol represents
a different digit (1-9)
– find out which
digit is represented
by each symbol

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Mystery symbols 7a

★	★	★	★	8
£	\$	e	♣	17
★	♠	★	♠	16
\$	★	€	♣	11
9	11	14	18	

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CUT OUT AND LAMINATE

Mystery symbols 7b

Each symbol represents
a different digit (1-9)
– find out which
digit is represented
by each symbol

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Mystery symbols

Activity 7b

8 cards

Mystery symbols 7b

$$\square + \square = \odot$$

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Mystery symbols 7b

$$\blacktriangle - \blacklozenge = \square$$

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Mystery symbols 7b

$$\odot + \odot = \odot \times \odot$$

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Mystery symbols 7b

$$\clubsuit - \square = \Omega$$

ATM

Mystery symbols 7b

$$\odot \times \odot = \heartsuit$$

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Mystery symbols 7b

$$\odot^3 = \clubsuit$$

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Mystery symbols 7b

$$\pencil + \odot = \Omega$$

ATM

CUT OUT

1						2		3
			4		5			
6	7						8	
9		10			11	12		
13	14		15		16		17	18
19							20	
			21					
22						23		

Across

1. The sum of 5 Down and 2 Across
2. The difference between 5 Down and 1 Across
4. The result of dividing 18 Down by 6, then subtracting 1000
6. A number that is both a square number and a cube number
8. The sum of all the digits in the second and third columns from the left of the grid
9. Half of 3 Down
11. Thirty times 19 Across
13. Four times 5 down
16. The result of adding together 13 Across and 17 Down
19. The larger of two square numbers that sum to 97
20. The highest common factor of 80 and 64
21. The result of taking 1 Down from 3 Down
22. The average of 16 Down and 21 Across
23. The sum of 6 Across and 8 Across

Down

1. A number made up by all the non zero even digits
3. The number of minutes in half a week
4. A multiple of 13
5. The product of 8 Across and 8
7. The lowest common multiple of 9 and 15
8. A prime number
10. The result of multiplying together 20 Across by one less than 20 Across
12. One third of the square root of 144 multiplied by 111
13. Six less than the difference between 4 Across and 11 Across
14. The sum of the first six prime numbers
15. The digits of 23 Across reversed
16. The product of 20 Across and 8
17. The result of 1 Across divided by 7
18. All the digits add up to 30



UNITED KINGDOM MATHEMATICS TRUST

MAKE A NUMBER CHALLENGE

- Time allowed: two minutes per question.
- You will be asked to make a target challenge number using some or all of six given numbers.
- You may use some or all of the given numbers to make the challenge number using any of the following symbols:
 $() + - \times \div$
- You may use each symbol any number of times.
- You can only use each number once.
- You do not have to use all the numbers.
- *Three* marks are awarded if the challenge number is obtained within two minutes. An additional *one* bonus mark is awarded if the challenge number is obtained within one minute.
- Give your answer to your supervising teacher as soon as possible. If it is incorrect then try again! There is no penalty for second and subsequent attempts.

Make a Number – Mark Sheet.

School Name: _____

School Number: _____

Three marks are awarded if the challenge number is obtained within two minutes. An additional *one* bonus mark is awarded if the challenge number is obtained within one minute.

Question	Marks		Bonus	Total
1.	3	0	1	
2.	3	0	1	
3.	3	0	1	
4.	3	0	1	
5.	3	0	1	
6.	3	0	1	
7.	3	0	1	
8.	3	0	1	
9.	3	0	1	
10.	3	0	1	

Total:

Question 1

Use the numbers 100, 4, 6, 7, 8 and 8 to make 601

Answer:

Question 2

Use the numbers 25, 2, 4, 5, 7 and 8 to make 395

Answer:

Question 3

Use the numbers 100, 3, 4, 6, 8 and 8 to make 333

Answer:

Question 4

Use the numbers 25, 1, 2, 3, 3 and 3 to make 297

Answer:

Question 5

Use the numbers 50, 1, 1, 4, 5 and 8 to make 531

Answer:

Question 6

Use the numbers 50, 2, 3, 4, 7 and 8 to make 468

Answer:

Question 7

Use the numbers 25, 2, 2, 2, 4 and 9 to make 166

Answer:

Question 8

Use the numbers 25, 1, 3, 4, 7 and 8 to make 668

Answer:

Question 9

Use the numbers 100, 5, 7, 7, 9 and 9 to make 238

Answer:

Question 10

Use the numbers 25, 3, 3, 5, 5 and 6 to make 407

Answer: