KS3 (S1 - S2)

Number Day

Who wants to be a mathionaire? We do!

Pupils will enjoy the challenge, the excitement and achievement of this game. Teachers can also play!

It will encourage pupils to:

- learn addition, subtraction, multiplication and division facts
- recognise multiples and fractions of familiar numbers
- find fractions and quantities
- understand and use the correct notation for money.

How to raise money:

Pupils are sponsored for every question they get right, or parents and carers can make a donation.

What you need:

- a set of question sheets for the pupils/contestants (there are 12 questions for each game)
- the answer sheet for the host
- chairs for the contestants to sit on
- the interactive PowerPoint presentation (optional).

How to play:

There are **12 questions**, each of which has four multiple choice answers. The questions increase in difficulty through the game.

There are different ways to play:

- pupils try all the questions and score points for the questions they get correct
- pupils start with the easiest questions – when they get a question wrong, that's the end of their turn. They score points at the last secure level (1,000 points, 5,000 points, 50,000 points etc).

You can play this game as a class:

- by asking a quick-fire question with the first pupil answering correctly becoming the contestant
- in teams, with each team answering all the questions, recording their answers and checking them at the end of the game
- individually, with each pupil answering all the questions, recording their answers and checking them at the end of the game
- in groups of about four, where one pupil acts as the question master, one as the contestant and the others as the audience/friend. Members of the group swap around so that every pupil has the chance to be the contestant. Then all the answers are marked and the highest number of points scored is taken as the score for all the members of the group
- groups of pupils can write their own lists of questions.

The following are suggested questions that could be used for the key stages indicated. The underlined answer is correct. The questions are arranged in order of difficulty. Add to them and replace questions as appropriate for your class.

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KS3

Question sheet

Year 7 (S1)

Number Day

1 (500 points)
Which shape has five vertices?
a) triangular pyramid
b) sphere
c) cuboid
d) square pyramid

2 (1,000 points)
Which of these units would best be used to measure the length of a tennis court?
a) km
b) m
c) cm
d) mm

3 (2,000 points)
There are nine spiders. How many legs altogether?
a) 81
b) 63
c) 54
d) 72

4 (5,000 points)
What do you call an angle of less than 90 degrees?
a) reflex angle
b) obtuse angle
c) acute angle
d) really cute angle

5 (10,000 points)
How many whole numbers contain exactly three letters when you write them as words?
a) 3
b) 5
c) 2
d) 4

6 (20,000 points)
What is 25% of £150?
a) £37.50
b) £25.75
c) £15
d) £35.25

7 (50,000 points)
Which number is the same as 7.47?
a) $7\ \frac{47}{100}$
b) $7\ \frac{4}{7}$
c) $\frac{7}{47}$
d) $7\ \frac{47}{1000}$

8 (75,000 points)
What's a quarter of a quarter?
a) one sixteenth
b) one sixth
c) one twelfth
d) one eighth

9 (150,000 points)
How many 65cm lengths of ribbon can be cut from a roll of 5m?
a) 8
b) 6
c) 7
d) 9

10 (250,000 points)
It takes four people six days to repaint a school. How many days would it take 12 people?
a) 18
b) 4
c) 2
d) 8

11 (500,000 points)
The sum of two prime numbers is 32. What are the numbers?
a) 9 and 23
b) 19 and 13
c) 27 and 5
d) 11 and 21

12 (1,000,000 points)
Six friends meet each other at a party, and they all shake each other's hand.
How many handshakes are there?
a) 6
b) 15
c) 30
d) 720

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Number Day

Answer sheet

Year 7 (S1)

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Which shape has five vertices?
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KS3

Number Day

Question sheet

Year 8/9 (S2)

1 (500 points)

Which shape has twice as many edges as faces?

a) triangular pyramid
b) sphere
c) triangular prism
d) cuboid

2 (1,000 points)

If a train leaves at 16.35 and arrives at 18.21, how long is the journey?

a) 2hr 5m
b) 1hr 46m
c) 1hr 15m
d) 1hr 35m

3 (2,000 points)

There are 250ml in a bottle. How many bottles can be filled from a three litre jug?

a) 3
b) 8
c) 10
d) 12

4 (5,000 points)

I think of a number, I multiply it by three, then subtract seven, and the answer is 23. What number did I first think of?

a) 10
b) 42
c) 12
d) 30

5 (10,000 points)

The temperature was 7°C above freezing, then it went down by 10°C and then got 15° warmer. What is the temperature now?

a) 7°C
b) 2°C
c) -3°C
d) 12°C

6 (20,000 points)

If 24 x 312 = 7,488, use this information to work out 2.4 x 31.2

a) 748.8
b) 74.88
c) 7.488
d) 0.7488

7 (50,000 points)

10 cards contain the digits 0 to 9. Anya chooses a card at random. What is the probability that the card chosen is a factor of 12?

a) 3/10
b) zero
c) 1/2
d) 2/5

8 (75,000 points)

A group of five friends got the following scores on their maths tests: 65, 70, 70, 60, 80. What was the mean (average) score?

a) 69
b) 70
c) 67
d) 75

9 (150,000 points)

What's a third of a quarter?

a) one sixteenth
b) one sixth
c) one twelfth
d) one eighth

10 (250,000 points)

What is the perimeter of a rectangle, with one side of length 8cm, and with an area of 56cm²?

a) 15cm
b) 30cm
c) 16cm
d) 32cm

11 (500,000 points)

The colour purple is made by a ratio of 3:1 of red paint to blue.
How many one litre cans of both colours would be needed to make 20 litres of purple paint?

a) 17 red, 3 blue
b) 12 red, 8 blue
c) 15 red, 5 blue
d) 16 red, 4 blue

12 (1,000,000 points)

Lauren is laying paving slabs in her patio. The slabs each measure 50 cm by 50 cm square. The patio is a 3 m by 4 m rectangle. How many slabs will Lauren need?

a) 62
b) 12
c) 2500
d) 48

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KS3

Number Day

Answer sheet

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