



UNITED KINGDOM MATHEMATICS TRUST

## **SPEED TEST**

- Time allowed is 20 minutes.
- There are 20 questions to try to answer in the time allowed.
- *Three* marks are awarded for every correct answer written on the answer grid. An answer is marked either correct or incorrect so no partial marks are given.
- Marks are not awarded for correct answers that have not been written on the answer grid, so make sure you write your answers on this. Units can be ignored.
- You will have to decide your team's strategy for this speed test and can organise yourselves to answer the questions however you want as quickly as possible.

## Speed Test

### Question 1

What is the value of  $9 - 8 + 6 - 5 + 4 - 3 + 2 - 1$  ?

### Question 2

In a class of 30 pupils, 60% are boys. How many girls are in the class?

### Question 3

I buy 3 CD's at £5.29 each and pay with a £20 note. How much change should I get?

### Question 4

What is the smallest number of coins needed to make up the amount of change in question 3?

### Question 5

What is  $\frac{1}{3}$  of 45 +  $\frac{1}{5}$  of 55 +  $\frac{1}{13}$  of 65?

### Question 6

In a class of 30 pupils, 20 pupils like rock music, 15 like rap music, including 10 who like both. How many do not like either rock or rap music?

### Question 7

We know that  $9 \times 8 = 72$ . What is the value of  $7200 \div 8000$ ?

### Question 8

What is the value of  $\frac{2}{3} + \frac{5}{7}$  ?

### Question 9

What is the value of  $1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$  ?

### Question 10

What is 20% of 20% of 350?

### Question 11

A train arrives in York at 15:05 after a journey of 2 hours 15 minutes from London. At what time did the train leave London?

### Question 12

3 choc boxes and 2 drinks cost £3.40 while 2 choc boxes and 3 drinks cost £3.10. How much will 1 choc box and 1 drink cost?

### Question 13

I have to run 1500 metres in 10 minutes for my gold award. I run at an average of 3m/s. By how many seconds do I succeed or fail in my quest for a gold award?

### Question 14

You are told that  $x = 2$  and  $y = 3$ . What is the value of  $2x^2 + 3y^2$ ?

**Question 15**

What is  $\frac{1}{2}$  of  $\frac{1}{3}$  of 96?

**Question 16**

What is the sum of all the square numbers greater than 100 but less than 200?

**Question 17**

We know that  $11^2$  is 121. What is the value of  $111^2$ ?

**Question 18**

What 3-digit number is both a square number and a cube number?

**Question 19**

It takes 7.5 hours to fly to New York. The return flight takes 90% of the outward flight time. How long is the return flight?

**Question 20**

A computer priced at £325 has its price increased by 25%. A month later it is reduced by 20% in the sale. What is the sale price?

## Speed Test Answer Sheet

**School Name:** \_\_\_\_\_ **School Number** \_\_\_\_\_

<u>Question1</u>	<u>Question11</u>
<u>Question2</u>	<u>Question12</u>
<u>Question3</u>	<u>Question13</u>
<u>Question4</u>	<u>Question14</u>
<u>Question5</u>	<u>Question15</u>
<u>Question6</u>	<u>Question16</u>
<u>Question7</u>	<u>Question17</u>
<u>Question8</u>	<u>Question18</u>
<u>Question9</u>	<u>Question19</u>
<u>Question10</u>	<u>Question20</u>

Three marks are awarded per correct answer.

**Total marks:**