



UNITED KINGDOM MATHEMATICS TRUST

SPEED TEST

- Time allowed: 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

How many 4 digit numbers can be made using the digits 3, 6, 9 and 9 exactly once each?

Question 2

What is the third largest number that can be made by using the digits 2, 4, 6, 8 exactly once each?

Question 3

Find 37.5% of 400.

Question 4

Find as a fraction in its lowest terms $\frac{1 \times 2 \times 3 \times 4 \times 5}{6 \times 7 \times 8 \times 9 \times 10}$.

Question 5

What is the smallest positive whole number divisible by 1, 2, 3, 4 and 5?

Question 6

What is the second smallest positive whole number divisible by 1, 2, 3, 4 and 5?

Question 7

You are given that $x = 4$ and $y = 5$. Find $2x^2(x + y)$.

Question 8

Find the sum of the prime numbers between 30 and 50.

Question 9

On a 2km journey, the first km is travelled at 1km/hr. The next is travelled at 2km/hr. What is the average speed over the whole journey?

Question 10

You are given one each of the coins 1p, 2p, 5p and 10p. How many different amounts of money can be made using some or all of the four coins?

Question 11

£150 is increased by 10% then decreased by 10%. What is the final amount after these changes?

Question 12

Find $\frac{2}{3}$ of $\frac{1}{2}$ of 165.

Question 13

Find the value of $14^2 - 13^2$.

Question 14

Which is bigger, $\frac{10}{13}$ or $\frac{11}{14}$?

Question 15

Three men make a wall in 15 days. Working at the same rate, how long would it take five men to make the same wall?

Question 16

Two chew bars and a fruit chew cost £1.80. Two fruit chews and a chew bar cost £2.40. What is the cost of 9 chew bars and 9 fruit chews?

Question 17

Find as a fraction in its simplest form $\frac{1}{2} - \frac{1}{3} + \frac{1}{4} - \frac{1}{5}$.

Question 18

Find the number of minutes in 2.4 hours.

Question 19

$11^2 = 121$. Find 11^4 .

Question 20

The fraction $\frac{1}{8}$ when expressed as a decimal is 0.125. Express the fraction $\frac{3}{16}$ as a decimal.

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: