Name: _____

Maths Genie Stage 2

Test B

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**
- **Calculators may not be used.**

Information

- The marks for each question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 Write 7518 to the nearest hundred.

_7500_

(Total for Question 1 is 1 mark)

2 Write 193.28 correct to one significant figure.

_200_

(Total for Question 20 is 1 mark)

3 Jane has m marbles.

Charles has 5 more marbles than Jane.

(a) Write an expression for the number of marbles Charles has.

_$m + 5$_

(1)

Agatha has 9 fewer marbles than Jane

(b) Write an expression for the number of marbles Jane has.

_$m - 9$_

(1)

(c) Write an expression for the total number of marbles Jane, Charles and Agatha have.

1 mark for 3m, 1 mark for -4

$m + m + 5 + m - 9$

_$3m - 4$_

(2)

(Total for Question 3 is 4 marks)

4 William is going to roll a 6 sided dice and flip a coin.
The dice can land on 1, 2, 3, 4, 5 or 6.
The coin can land on heads or tails.

List all the possible outcomes.

1H　2H　3H　4H　5H　6H
1T　2T　3T　4T　5T　6T

1 mark for just 1 error

(Total for Question 4 is 2 marks)

5 There are some counters in a bag.

The table shows the number of counters of each colour.

Colour	Red	Blue	Yellow	Green
Number of Counters	4	3	7	5

A counter is taken at random from the bag.

(a) Write down the probability that the counter is green.

$$\frac{5}{19}$$

(1)

(b) Write down the probability that the counter is <u>not blue</u>.

$$\frac{16}{19}$$

(1)

(Total for Question 5 is 2 marks)

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6 (a) Simplify $2y \times 3y$

$$6y^2$$

(1)

(b) Simplify $9a + 2a - a$

$$10a$$

(1)

(Total for question 6 is 2 marks)

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7 Work out $3591 - 746$

$$
\begin{array}{cccc}
{}^2\cancel{3} & {}^1 5 & {}^8\cancel{9} & {}^1\cancel{1} \\
- & 7 & 4 & 6 \\
\hline
2 & 8 & 4 & 5 \\
\end{array}
$$

1 mark for just 1 error

2 8 4 5

(Total for Question 7 is 2 marks)

8   Work out $29.34 + 7.58$

$$
\begin{array}{r}
2\,9\,.\,3\,4 \\
+\quad 7\,.\,5\,8 \\
\hline
3\,6\,.\,9\,2
\end{array}
$$

1 mark for just 1 error

36.92

(Total for Question 8 is 2 marks)

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9   Work out $2688 \div 7$

7
14
21
28
35
42
49
56
63
70

$$7\,\overline{)\,2\,{}^26\,{}^58\,{}^28\,}\; = 0\,3\,8\,4$$

1 mark for just 1 error

384

(Total for Question 9 is 2 marks)

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10   Work out 56.2×8.4

$$
\begin{array}{r}
5\,6\,2 \\
\times \quad 8\,4 \\
\hline
2\,2\,4\,8 \\
4\,4\,9\,6\,0 \\
\hline
4\,7\,2\,0\,8
\end{array}
$$

1 mark for just 1 error

472.08

(Total for Question 10 is 2 marks)