# S1 Mathematics Test (Ch 1)

Time allowed: 35 minutes

Total marks: 30 marks

## Multiple Choice Questions (10 marks)

1. Anna is 47.5 kg. She is 5 kg lighter than Simon. What fraction of Simon's weight is Anna's?

   A. $\frac{1}{19}$ B. $\frac{1}{21}$ C. $\frac{17}{19}$ D. $\frac{19}{21}$

2. Which of the following numbers is divisible by 36?

   A. 114616 B. 123128 C. 215748 D. 275500

3. A rectangular sheet of paper with dimensions $63\text{ cm} \times 273\text{ cm}$ is cut into identical squares. Find the least number of squares that can be cut.

   A. 16 B. 39 C. 42 D. 49

4. Which of the following is/are correct?

   I. $4\frac{3}{7} = 4 + \frac{3\times 5}{7\times 5}$

   II. $7\frac{1}{2} - 3\frac{5}{6} = 7 + \frac{1}{2} - 3 + \frac{5}{6}$

   III. $1\frac{2}{3} \div \frac{5}{8} \div 2\frac{3}{4} = 1\frac{2}{3} \times \frac{8}{5} \times 2\frac{4}{3}$

   A. I only B. I and II only C. I and III only D. II and III only

5. Which of the following has the smallest value?

   A. $2\times 10^4$ B. $20.17^3$ C. $200^2$ D. $2017\times 20.17$

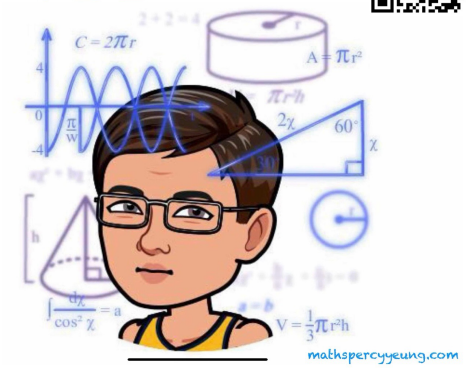
## Conventional Questions (20 marks)

1. (a) Express 1650 in index notation.
   (b) Write down (i.e. no steps) the smallest integer $k$ such that $1650k$ is a square number.

   (2 marks)

2. Calculate $\left\{4\frac{1}{10} - \left[1.56 + 7.5\times\left(\frac{12}{5} - 2.08\right)\right]\right\} \div 0.2$. (4 marks)

**To be continued**




3. It is known that that the L.C.M. of a given number and 75 is 1350. Find ALL possible values of the given number.

(3 marks)

4. Susan buys 72 peaches, 108 apples and 126 oranges for $n$ students, where $n$ is greater than 1. The peaches, apples and oranges are evenly distributed among the $n$ students. Find all the possible values of $n$.

(3 marks)

5. Find the greatest 4-digit number which is divisible by 24, 80, 144. (4 marks)

6. Mr Chow's monthly salary is \$33 000. Every month, he spends $\frac{1}{10}$ of his salary on study, $\frac{1}{6}$ on food, $\frac{2}{5}$ on transport, and saves the rest. How much can Mr Chow save in a year?

(4 marks)

**END OF PAPER**