2025 – 2026 1B Mathematics Chapter Test
Textbook 1A Chapter 3

Name: _____ Class: _____ Class Number: _____ Marks: _____ / 25

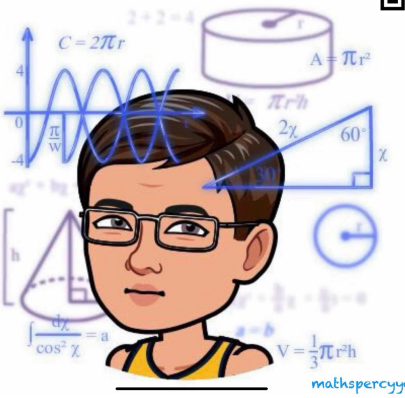
****Complete ALL Questions with appropriate steps in the spaces provided.****

1. Simplify the following expressions.

   (a) $3d + 5e - 2d - 6e$ (2 marks)

   (b) $9r - 3 - 3r \times 2$ (2 marks)

   (c) $q + 12p \div 3 + 2q - 2p$ (2 marks)



2. (a) Given the formula $a = \dfrac{b^2}{b+2}$, find the value of a if $b = -4$. (3 marks)

   (b) Given the formula $p = \dfrac{q^2}{12} - rs$. find the value of p if $q = -6$, $r = 3$ and $s = 2$. (3 marks)

3. It is given that the nth term of the sequence is $8n + 1$.

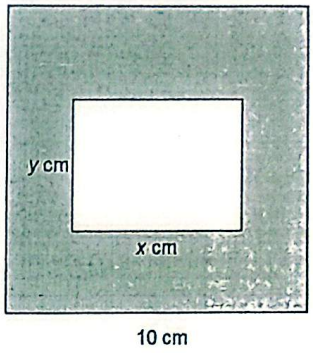
   (a) Find the 11th term of the sequence. (2 marks)(b) Is the 11th term a square number? (1 mark)

4. For the sequence 1, 3, 9, 27, 81, ..., write down the next two terms of the sequence. (2 marks)

5. The figure shows a square of side 10 cm and a rectangle with length x cm and width y cm.
It is given that the area of the shaded region is A cm^2.

(a) Find the formula for calculating the value of area A. (2 marks)

(b) If $x = 7$ and $y = 5$, find the area of the shaded region. (2 marks)



Each of the multiple choices questions carries 2 marks. Choose the best answer for each question.

6. Find the 6th term in the sequence $\frac{7}{2}, \frac{5}{4}, \frac{3}{6}, \frac{1}{8}, -\frac{1}{10}, \ldots$

A. $\frac{1}{12}$ B. $-\frac{1}{12}$ C. $\frac{1}{4}$ D. $-\frac{1}{4}$

7. The following shows a sequence of figures formed by dots. The 1st figure consists of 5 dots. For any positive integer n, the $(n + 1)$th figure is formed by adding 4 dots to the nth figure.

Figures: 1st 2nd 3rd 4th

How many dots are there in the 9th figure?

A. 33 B. 36 C. 37 D. 41

END OF PAPER