2025 – 2026 Academic Year

Grade 9 Mathematics Chapter Test 2

Name: _____(_____)

Marks: _____ / 27

Class: _____

Date: _____

Parent's Signature: _____

Content: Ch.1 More about Factorization of Polynomials

Time allowed: 35 minutes

This paper must be answered in English

Instructions

1. This paper consists of 2 sections, Section A and Section B.
2. There are 9 questions in this paper.
3. Answer all the questions.
4. Use of any calculators is **NOT** allowed.
5. Write your answers in this question-answer paper.

   (a) Multiple choice questions

   Mark your answer by filling the '☐' with an HB pencil, e.g.:

   2 + 3 =

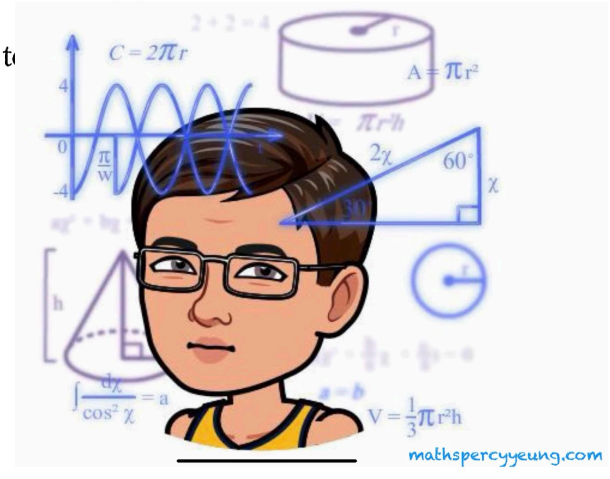
   ☐ A. 4 ■ B. 5 ☐ C. 6 ☐ D. 7

   (b) Other types of questions

   Write your mathematical expressions, answers and statements/conclusions in the space provided. There is NO need to show the rough work

6. Unless otherwise specified, numerical answers should b
   either exact or correct to 3 significant figures.
7. The diagrams in this paper are not necessarily drawn t
   scale.
8. Do your rough work in the rough worksheet provided.

Teacher's Use Only		
Question No.	Max. marks	Marks
Section A		
1 – 5	10	
Sub-total	**10**	
Section B		
6	4	
7	4	
8	4	
9	5	
Sub-total	**17**	



Section A: Multiple-choice Questions (10 marks)

1. Factorize $-q^2+70+3q$.

   A $-(q+7)(q-10)$

   B. $-(q+5)(q-14)$

   C. $(q-7)(q-10)$

   D. $(q-5)(q-14)$

2. $\dfrac{1}{x^2-4x+4}-\dfrac{1}{x^2+x-6}=$

   A. $\dfrac{1}{(x-2)(x+3)}$.

   B. $\dfrac{1}{(x-2)^2(x+3)}$.

   C. $\dfrac{5}{(x-2)^2(x+3)}$.

   D. $\dfrac{2x+5}{(x-2)^2(x+3)}$.

3. Which of the following expressions has/have $3x+4$ as a factor?

   I. $3x^2+7x+4$

   II. $6x^2+x-12$

   III. $3x^2+19x+20$

   A. I only

   B. I and III only

   C. II and III only

   D. I, II and III

4. If $r^2+hr-12\equiv(r+a)(r+b)$, where a and b are integers, which of the following are the possible values of h?

I. -1

II. 4

III. 11

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

5. If b is a positive integer such that $12b^2-47b-42\equiv(3b-14)(4b+3)$ is a prime number, then $b=$

A. 1 .

B. 5 .

C. 6 .

D. 23 .

Section B: Conventional Questions (17 marks)

6. Factorize the following expressions.

(a) $m^2+8m+15$ (1 mark)

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(b) $a^2-5a-14$ (1 mark)

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(c) $10x+x^2-24$ (1 mark)

(d) $3a^2+7ab-6b^2$ (1 mark)

7. (a) Factorize $3x^2-14x-5$. (1 mark)

(b) Hence, simplify $\frac{2x-10}{3x^2-14x-5}$. (3 marks)

8. (a) Factorize $12m^2 - 35m - 3$. (1 mark)

(b) Hence, factorize $24n(4t-5)^2 - 70n(4t-5) - 6n$. (3 marks)

9. (a) Factorize $x^3 + y^3$. (1 mark)

(b) Hence, factorize $(\sqrt{3}+3)^3 + (\sqrt{3}-3)^3$. (4 marks)

END OF PAPER