NAME OF SCHOOL

GRADE 8

MATHEMATICS

SEPTEMBER 2025

MARKS: 50

TIME: 1HOUR

INSTRUCTIONS
Read the instructions carefully below, before starting with the question paper

1. This paper consists of 5 questions and 4 pages.
2. Answer all the questions.
3. Number the answers correctly according to the numbering system used in this paper.
4. Show all calculations as ANSWERS ONLY will not necessarily be awarded full marks.
5. You may use an approved calculator, unless stated otherwise.
6. If necessary, round off answers to TWO decimal places, unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1

For each of the following questions, choose the correct answer. Write the correct letter next to the correct question.

1.1 An angle greater than $180°$ but less than $360°$ is called a: (1)

A Acute angle
B Obtuse angle
C Reflex angle
D Straight angle

1.2 A triangle with all 3 angles the same size. (1)

A Right-angled triangle
B Scalene triangle
C Equilateral triangle
D Isosceles triangle

1.3 Simplify: $-4y + 6y - y$ (1)

A y
B $2y$
C $-3y$
D $9y$

1.4 Simplify: $(-3a^3b^4)^2$ (1)

A $-9a^5b^6$
B $6a^6b^8$
C $-6a^5b^6$
D $9a^6b^8$

1.5 Simplify: $\frac{4x^3y^4-(16x^3y^4)}{-4xy}$ (1)

A $-3x^5y^7$

B $3x^2y^3$

C $-3x^2y^3$

D $3x^5y^7$

[5]

QUESTION 2

2.1 Simplify the following expressions:

2.1.1 $-3a^2-(-5a^2)$ (2)

2..1.2 $\sqrt{36a^2}+\sqrt[3]{-8a^3}$ (3)

2.2 Determine the value of the expression $3p+2q$ if $p=2$ and $q=-7$. (2)

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QUESTION 3

3.1 Solve for x in the following equations:

3.1.1 $6x-4=8$ (2)

3.1.2 $5(x-4)=5-3(x+2)$ (4)

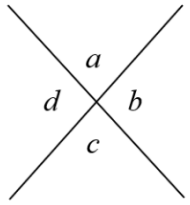
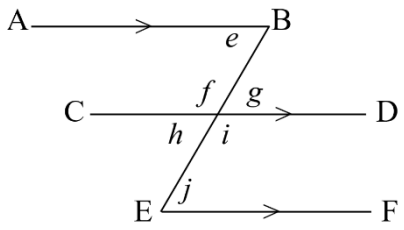
3.1.3 $\frac{3x+3}{4}=6$ (3)

3.2 The length of a rectangle is 3 times the breadth of the rectangle. The perimeter of the rectangle is 160 cm. Calculate the length of the rectangle. (4)

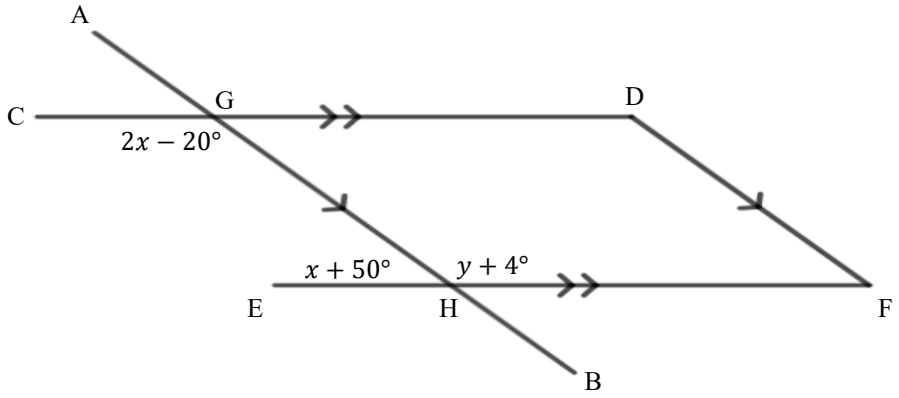
[13]

QUESTION 4

4.1 For each of the following questions, give ONLY the correct reason for the corresponding statement.

Diagram	Statement	Reason
	$a = c$	4.1.1 _____ (1)
	$a + b + c + d = 360°$	4.1.2_____ (1)
	$e + f = 180°$	4.1.3 _____ (1)
	$j = g$	4.1.4_____ (1)

4.2 Use the diagram below and answer the following questions:



4.2.1 Calculate the value of x (3)

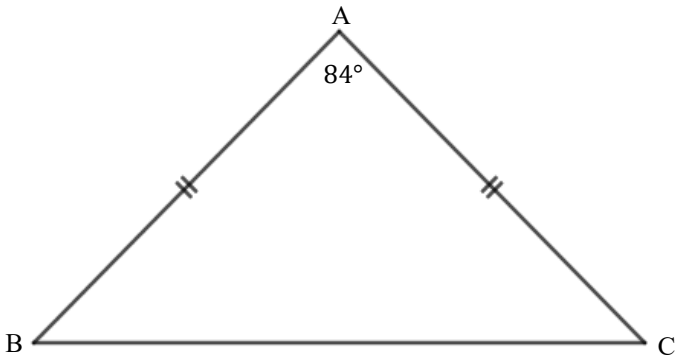
4.2.2 What is the size of $C\widehat{G}H$? (2)

4.2.3 Hence, determine the value of y. (3)

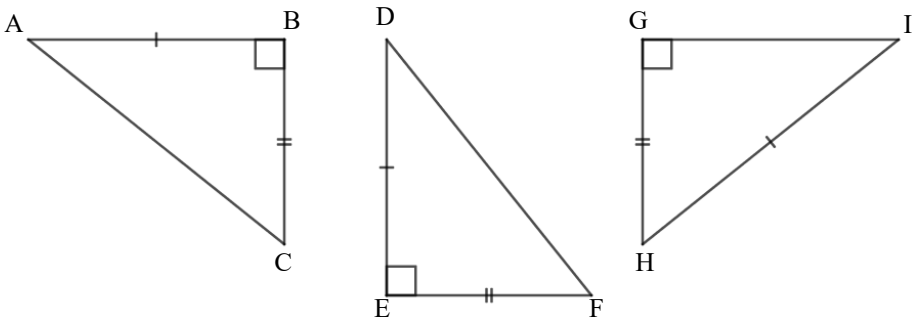
[12]

QUESTION 5

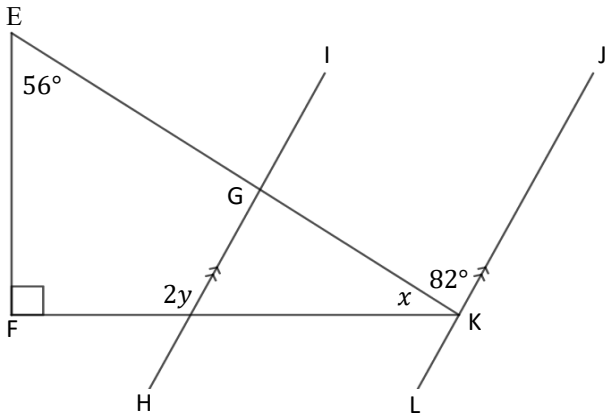
5.1 In the triangle below, $B\hat{A}C = 84°$. Determine, with reasons, the size of $A\hat{C}B$. (3)



5.2 Identify the two congruent triangles and give the case of congruency. (2)



5.3 Study the diagram below and answer the following questions, giving reasons.



5.3.1 Calculate the value of x. (2)

5.3.2 Determine the value of y. (4)

5.3.3 What is the size of ∠EGH? (2)

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TOTAL: 50