



Student Name: _____

Class: _____

Student ID: _____

Date: {{DATE}}

Assessment Details

Duration: 60 minutes

Total Marks: 75

Topics Covered:

- Algebraic Expressions
- Geometric Principles
- Problem-Solving

Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Calculator use is permitted except where stated otherwise.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section A: Multiple Choice [20 marks]

Question 1

[1 mark]

Simplify the expression: $2x + 5 - 3x$

A) $-x + 5$

B) $x + 5$

C) $-x - 5$

D) $x - 5$

Question 2

[1 mark]

Solve for x: $4x = 20$

A) $x = 4$

B) $x = 5$

C) $x = 6$

D) $x = 8$

Question 3

[1 mark]

Graph the function: $y = 2x - 1$

A) A straight line with a slope of 2 and a y-intercept of -1

B) A straight line with a slope of 1 and a y-intercept of -2

C) A straight line with a slope of -2 and a y-intercept of 1

D) A straight line with a slope of -1 and a y-intercept of 2

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[1 mark]

Evaluate the expression: $3(2x - 1)$ when $x = 2$

A) 9

B) 10

C) 11

D) 12

Question 5

[1 mark]

Simplify the expression: $x^2 + 4x + 4$

A) $(x + 2)^2$

B) $(x - 2)^2$

C) $(x + 1)^2$

D) $(x - 1)^2$

Section B: Short Answer Questions [30 marks]

Question 6

[5 marks]

Solve for x : $2x + 5 = 11$

Question 7

[5 marks]

Simplify the expression: $x^2 + 2x - 6$

Question 8

[5 marks]

Find the area of a triangle with a base of 5 cm and a height of 6 cm

Question 9

[5 marks]

Find the perimeter of a rectangle with a length of 8 cm and a width of 5 cm

Find the volume of a cube with a side length of 4 cm

Question 11

[25 marks]

Design a geometric shape using algebraic expressions. Provide a written explanation of your design, including the equations used to create the shape and the geometric principles applied.



Marking Guide

Section A: Multiple Choice [20 marks]

Section B: Short Answer Questions [30 marks]

Section C: Project-Based Question [25 marks]

Total: 75 marks