

Student Name: _____**Class:** _____**Student ID:** _____**Date:** {{DATE}}

Assessment Details

Duration: 2 hours	Total Marks: 100
Topics Covered:	• 2D Shapes • 3D Shapes • Geometric Properties • Spatial Relationships

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

[2 marks]

What is the definition of a polygon?

A) A 2D shape with four sides

B) A 2D shape with five sides

C) A 2D shape with at least three sides

D) A 3D shape with six sides

Question 2

[2 marks]

What is the perimeter of a rectangle with a length of 6cm and a width of 4cm?

A) 10cm

B) 12cm

C) 14cm

D) 20cm

Question 3

[2 marks]

What is the volume of a cube with an edge length of 5cm?

A) 25cm^3

B) 50cm^3

C) 100cm^3

D) 125cm^3

Question 4

[2 marks]

What is the difference between a prism and a pyramid?

A) A prism has a square base, while a pyramid has a triangular base

B) A prism has a triangular base, while a pyramid has a square base

C) A prism has a rectangular base, while a pyramid has a triangular base

D) A prism has a triangular base, while a pyramid has a rectangular base

Question 5

[2 marks]

If a triangle has two sides of length 5cm and 7cm, what is the maximum possible length of the third side?

A) 10cm

B) 12cm

C) 14cm

D) 15cm

Question 6

[8 marks]

Describe the properties of a triangle.

Question 7

[8 marks]

What are the characteristics of a sphere?

Question 8

[8 marks]

Compare the properties of a rectangle and a square.

Question 9

[8 marks]

If a rectangular prism has a length of 10cm, a width of 5cm, and a height of 3cm, what is its volume?

Draw a 2D representation of a 3D shape and describe its properties.



Question 11

[40 marks]

Design a bridge using geometric shapes and calculate its length, width, and height. Be sure to label your work clearly and show all calculations.



