EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
37	1 hour	4

Name: _____ Class: _____

Date: _____

MARK ____ / 37

INSTRUCTIONS AND INFORMATION

1. Answer **ALL** the questions in this question paper.
2. Answer QUESTION 1 by **circling** the letter (A–D) in the answer grid at the end of that section.
3. Show **ALL** calculations clearly.
4. Show all units where applicable.
5. Number the answers correctly according to the numbering system used in this question paper.
6. A non-programmable calculator may be used, unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1 [10 MARKS]

Four options are given as possible answers to the following questions. Choose the correct answer and circle the letter (A–D) in the grid at the end of this section. If you want to change your choice, put a cross through the wrong letter and circle your new choice.

1.1 The angles of a triangle add up to ... (1)

A) 180° **B)** 360°
C) 540° **D)** 90°

1.2 The angles of a quadrilateral add up to ... (1)

A) 540° **B)** 360°
C) 270° **D)** 180°

1.3 Two angles of a triangle are 55° and 65°. The third is ... (1)

A) 60° **B)** 240°
C) 120° **D)** 70°

1.4 A triangle with all three sides equal is called ... (1)

A) scalene **B)** right-angled
C) isosceles **D)** equilateral

1.5 The base angles of an ISOSCELES triangle are ... (1)

A) always 60° **B)** equal to each other
C) always right angles **D)** always different

1.6 The EXTERIOR angle of a triangle equals ... (1)

A) the largest interior angle **B)** the adjacent interior angle
C) 180° **D)** the sum of the two opposite interior angles

1.7 Which quadrilateral has diagonals that bisect each other AT RIGHT ANGLES but are NOT equal? (1)

A) square **B)** rectangle

C) trapezium **D)** rhombus

1.8 Opposite angles of a PARALLELOGRAM are ... (1)

A) complementary **B)** supplementary

C) equal **D)** right angles

1.9 Three angles of a quadrilateral are $80°$, $95°$ and $110°$. The fourth is ... (1)

A) $85°$ **B)** $95°$

C) $75°$ **D)** $285°$

1.10 Every square is a rectangle because ... (1)

A) it has four right angles **B)** its diagonals are equal

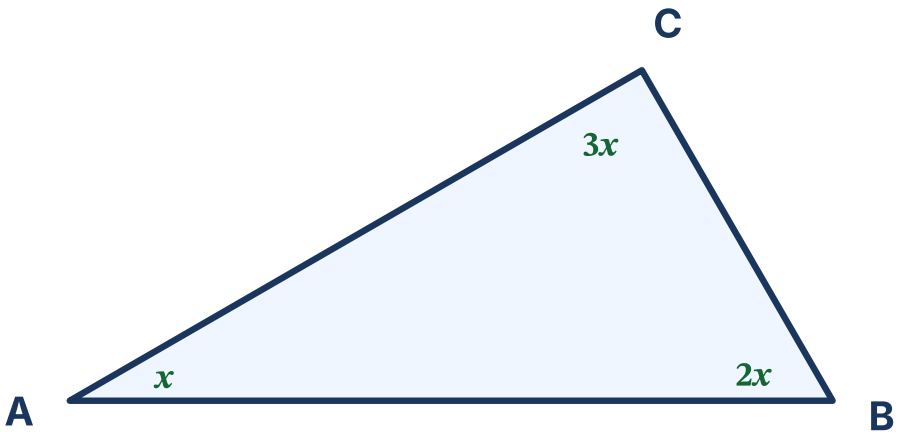
C) it is a quadrilateral **D)** all its sides are equal

ANSWER GRID — CIRCLE YOUR ANSWERS FOR QUESTION 1

1.1	A	B	C	D
1.2	A	B	C	D
1.3	A	B	C	D
1.4	A	B	C	D
1.5	A	B	C	D
1.6	A	B	C	D
1.7	A	B	C	D
1.8	A	B	C	D
1.9	A	B	C	D
1.10	A	B	C	D

QUESTION 2 **[10 MARKS]**

In $\triangle ABC$ below the three interior angles are given as x, $2x$ and $3x$. *The diagram is not drawn to scale.*



2.1 Calculate the value of x. **(3)**

STATEMENT	REASON

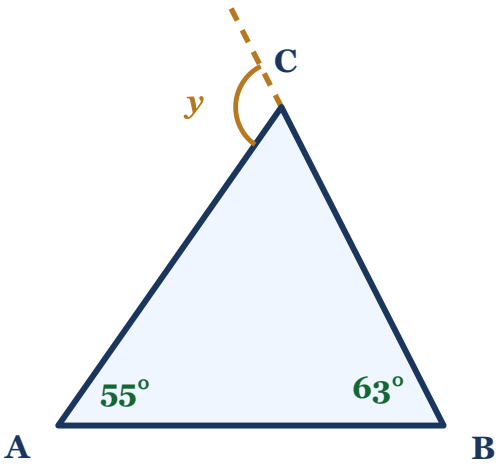
2.2 Hence write down the size of each angle, and state what kind of triangle ABC is. Give a reason. **(4)**

STATEMENT	REASON

2.3 In a different triangle the three angles are equal. Determine the size of each angle and name the triangle. **(3)**

QUESTION 3 **[7 MARKS]**

In the diagram below, one side of the triangle has been produced to form the exterior angle y. *The diagram is not drawn to scale.*



3.1 Determine, with a reason, the size of y. **(3)**

STATEMENT	REASON

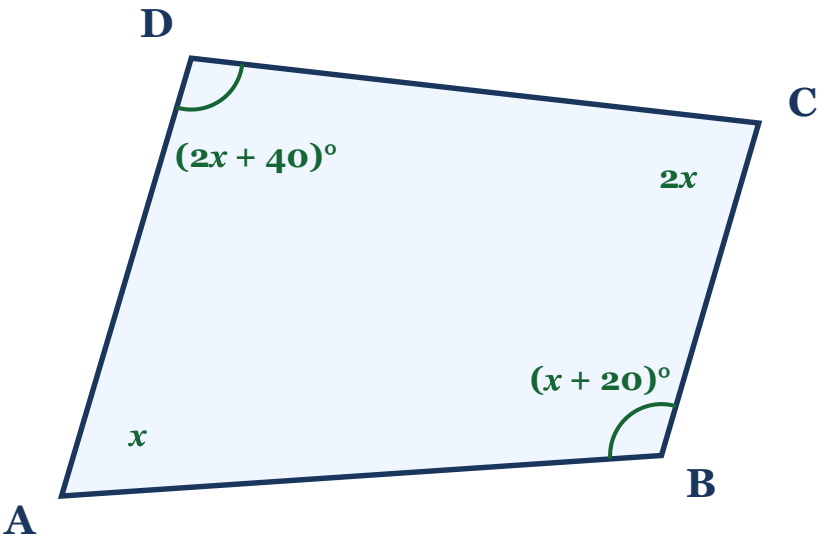
3.2 Hence determine the size of the third interior angle of the triangle, in two different ways. **(4)**

STATEMENT	REASON

QUESTION 4

[10 MARKS]

Answer the following questions about quadrilaterals.



not drawn to scale

4.1 The four angles of a quadrilateral are x, $(x + 20)°$, $2x$ and $(2x + 40)°$. Calculate the value of x. **(3)**

STATEMENT	REASON

4.2 Hence write down the sizes of the four angles and check your answer. **(3)**

4.3 PQRS is a parallelogram with $\hat{P} = 70°$. Determine, with reasons, the sizes of $\hat{Q}$ and $\hat{R}$. **(4)**

STATEMENT	REASON

TOTAL: 37 marks

This question paper consists of 4 questions.

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