EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
30	45 minutes	3

Name: _____ Class: _____

Date: _____

MARK ____ / 30

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 Which property does a RECTANGLE have that a general parallelogram does NOT? (1)

A) its opposite angles are equal
B) its diagonals bisect each other
C) its diagonals are equal
D) its opposite sides are parallel

1.2 Which property does a RHOMBUS have that a rectangle does NOT? (1)

A) its diagonals are equal
B) its opposite angles are equal
C) its opposite sides are parallel
D) its diagonals cross at right angles

1.3 A quadrilateral with exactly ONE pair of parallel sides is a ... (1)

A) kite
B) parallelogram
C) trapezium
D) rhombus

1.4 In parallelogram ABCD, $\hat{A} = 70°$. Then $\hat{B} = ...$ (1)

A) $70°$
B) $290°$
C) $20°$
D) $110°$

1.5 Which ONE of these proves that a quadrilateral is a parallelogram? (1)

A) the diagonals are equal
B) both pairs of opposite sides are equal
C) one pair of opposite sides is equal
D) one pair of opposite angles is equal

1.6 The diagonals of a KITE ... (1)

A) bisect each other

B) cross at $90°$, and the axis of symmetry bisects the other diagonal

C) are equal

D) are both axes of symmetry

1.7 The interior angles of any quadrilateral add up to ... (1)

A) $180°$

B) $540°$

C) $360°$

D) $720°$

1.8 In rhombus PQRS the diagonals meet at T. Then $\triangle$PTQ is ... (1)

A) obtuse-angled

B) equilateral

C) scalene with no special angle

D) right-angled

1.9 A square is ... (1)

A) both a rectangle and a rhombus

B) a rhombus but not a rectangle

C) a rectangle but not a rhombus

D) neither a rectangle nor a rhombus

1.10 In parallelogram ABCD, AB $= 3x - 4$ and DC $= x + 8$. Then $x =$ ... (1)

A) 6

B) 4

C) 12

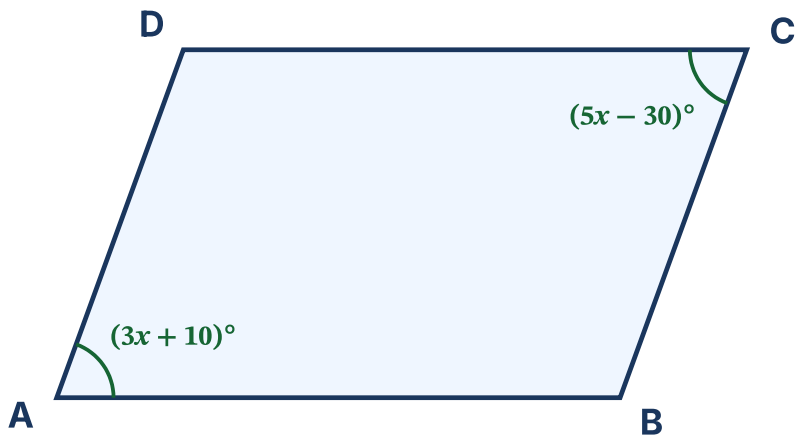
D) 3

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 [9 MARKS]

ABCD is a parallelogram. It is given that $\hat{A} = (3x + 10)°$ and $\hat{C} = (5x - 30)°$.



not drawn to scale

2.1 Give a reason why $\hat{A} = \hat{C}$. (2)

STATEMENT	REASON

2.2 Calculate the value of x. (3)

2.3 Hence calculate the size of $\hat{A}$ and of $\hat{B}$, with reasons. (4)

STATEMENT	REASON

QUESTION 3 [11 MARKS]

Answer the questions below on the properties of quadrilaterals.

3.1 State THREE properties that a rhombus has but a general parallelogram does not. (3)

3.2 A quadrilateral has one pair of opposite sides both parallel AND equal. Prove that it must be a parallelogram. (3)

STATEMENT	REASON

3.3 A quadrilateral has diagonals that bisect each other at right angles but are NOT equal in length. Name the quadrilateral and give a reason. (3)

STATEMENT	REASON

3.4 Explain why every square is a rectangle, but not every rectangle is a square. (2)

TOTAL: 30 marks

This question paper consists of 3 questions.

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