EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
29	45 minutes	3

Name: _____ Class: _____

Date: _____

MARK ____ / 29

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 When two parallel lines are cut by a transversal, CO-INTERIOR angles are ... (1)

A) vertically opposite **B)** SUPPLEMENTARY
C) complementary **D)** equal

1.2 ALTERNATE angles between parallel lines are ... (1)

A) complementary **B)** supplementary
C) always right angles **D)** equal

1.3 CORRESPONDING angles between parallel lines are ... (1)

A) supplementary **B)** equal
C) unequal **D)** complementary

1.4 Two parallel lines are cut by a transversal. One co-interior angle is $110°$. The other is ... (1)

A) $20°$ **B)** $250°$
C) $70°$ **D)** $110°$

1.5 Lines AB and CD are parallel. An alternate angle to one of $63°$ is ... (1)

A) $63°$ **B)** $27°$
C) $117°$ **D)** $297°$

1.6 Which pair of angles proves that two lines are PARALLEL? (1)

A) vertically opposite angles **B)** equal corresponding angles
C) two angles that add to $90°$ **D)** two angles on a straight line

1.7 In the letter Z between parallel lines, the two angles are ... (1)

A) co-interior **B)** supplementary

C) alternate and EQUAL **D)** corresponding

1.8 Two parallel lines are cut by a transversal. If one angle is $90°$, then ... (1)

A) the lines are not really parallel **B)** only that angle is $90°$

C) four are $90°$ and four are $180°$ **D)** ALL eight angles are $90°$

1.9 Angles of x and $(2x + 30)°$ are co-interior between parallel lines. Then $x =$ ... (1)

A) $50°$ **B)** $60°$

C) $70°$ **D)** $30°$

1.10 Which statement is TRUE for lines that are NOT parallel? (1)

A) co-interior angles still add to $180°$ **B)** corresponding angles are still equal

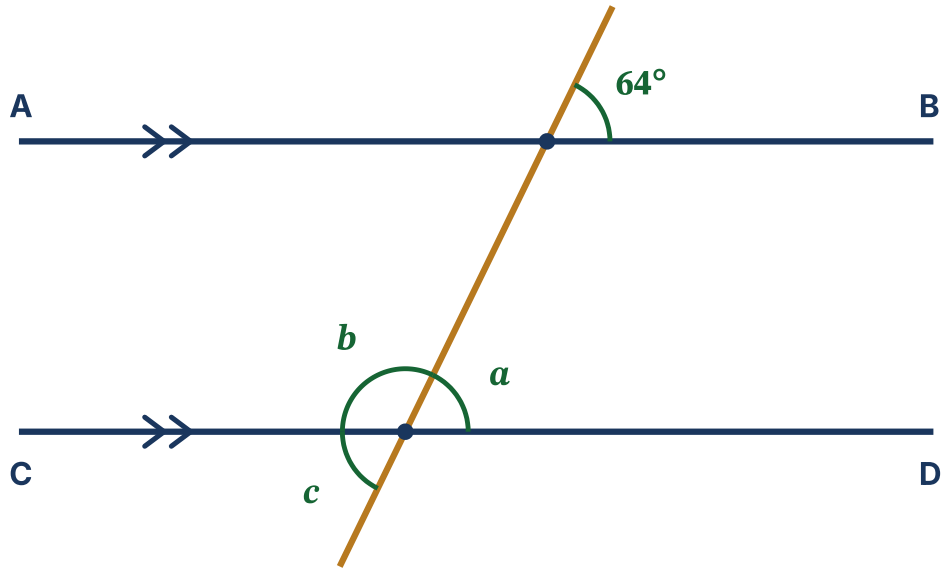
C) alternate angles are still equal **D)** alternate angles need NOT be equal

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 the diagram below, AB ∥ CD and a transversal cuts both lines. One angle of $64°$ is given. Determine, with a reason, the size of EACH of the angles a, b and c. *The diagram is not drawn to scale.*



2.1 The size of a. **(3)**

STATEMENT	REASON

2.2 The size of b. **(3)**

STATEMENT	REASON

2.3 The size of c. **(4)**

STATEMENT	REASON

QUESTION 3 [9 MARKS]

Answer the following.

3.1 Two co-interior angles between a pair of parallel lines are $(2x + 20)°$ and $(3x - 10)°$. Calculate the value of x. **(3)**

STATEMENT	REASON

3.2 Hence determine the size of each of the two angles, and check your answer. **(3)**

3.3 Two straight lines are cut by a transversal. A pair of alternate angles are both $75°$. State, with a reason, whether the two lines are parallel. **(3)**

STATEMENT	REASON

TOTAL: 29 marks

This question paper consists of 3 questions.

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