Properties of Quadrilaterals & Their Proofs (Grade 10)

WORKSHEET

Name: _____ Class: _____

Date: _____

MARK _____ / 18

Answer all questions. Show all your working — marks are awarded for method as well as the final answer.

1 Two co-interior angles of a parallelogram are $(3x + 10)°$ and $(x + 30)°$. Determine the value of x, and hence the size of each angle. **(4)**

2 Define a parallelogram. **(2)**

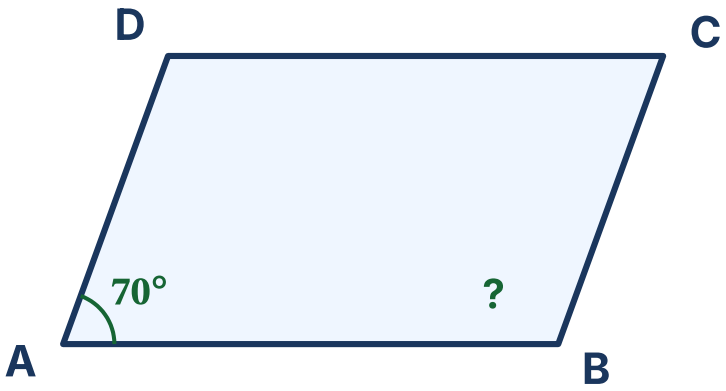
3 Which quadrilateral has diagonals that are equal AND bisect each other? **(1)**

4 Which quadrilateral has perpendicular diagonals that bisect the angles? **(1)**

5 How many pairs of parallel sides does a trapezium have? (1)

6 Do a kite's diagonals bisect each other? (1)

7 In parallelogram ABCD, $\hat{A} = 70°$. Find $\hat{C}$ and $\hat{B}$. (2)



8 State five ways to prove a quadrilateral is a parallelogram. (4)

9 Is every rectangle a parallelogram? Is every parallelogram a rectangle? **(2)**

TOTAL: 18 marks

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