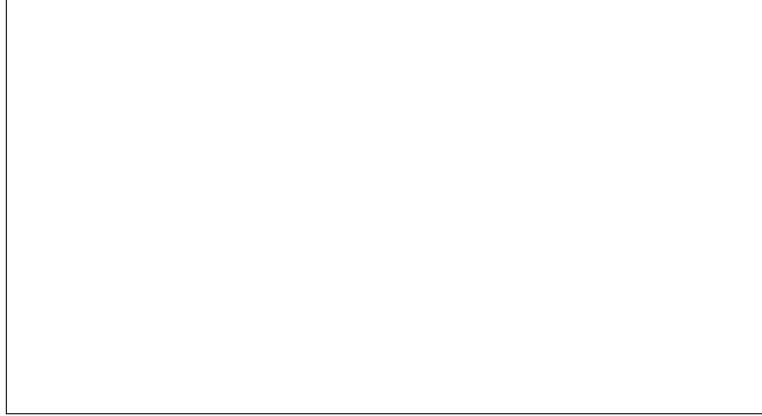# PROPERTIES OF QUADRILATERALS

A QUADRILATERAL CLASSIFICATION

A.1 CONSTRUCTING QUADRILATERALS WITH A RULER AND SET SQUARE

Ex 1: Construct a square $ABCD$ with side length $AB = 3$ cm using a ruler and a set square on paper.

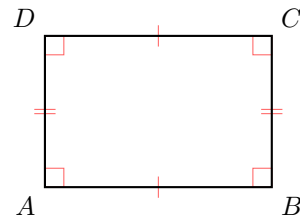**Ex 2:** Construct a rectangle $ABCD$ with side lengths $AB = 4$ cm and $AD = 3$ cm using a ruler and a set square on paper.

Ex 3: Construct a square $ABCD$ with diagonal length $AC = 3$ cm using a ruler and a set square on paper.

B PROPERTIES

B.1 CLASSIFYING QUADRILATERALS

MCQ 4: Classify the quadrilateral.

Choose all answers that apply:

☐ Parallelogram

☐ Rhombus

☐ Rectangle

☐ Square

MCQ 5: A square has four right angles.

☐ True

☐ False

MCQ 6: The opposite sides of a rhombus are parallel.

☐ True

☐ False

MCQ 7: The adjacent sides of a rectangle are parallel.

☐ True

☐ False

MCQ 8: A square is a special type of rectangle.

☐ True

☐ False

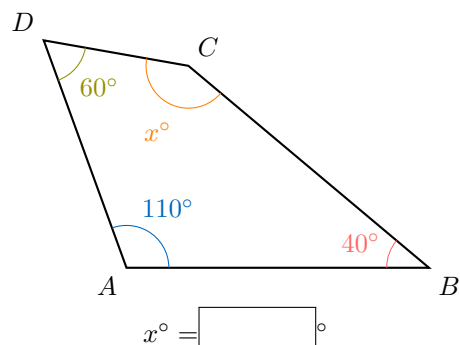**MCQ 9:** A rectangle is a special type of square.

☐ True

☐ False

MCQ 10: A rectangle is a special type of parallelogram.
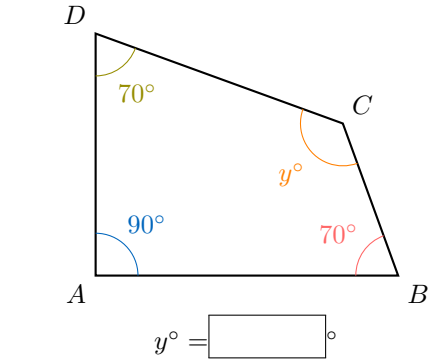
☐ True

☐ False
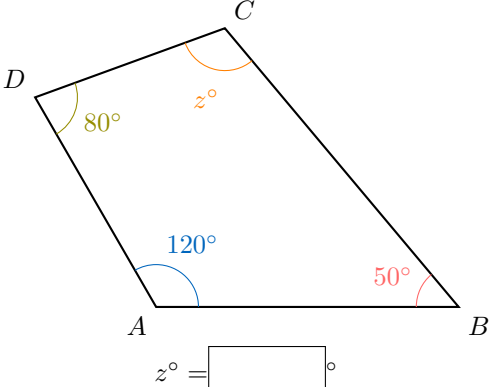
C ANGLES

C.1 FINDING AN UNKNOWN ANGLE

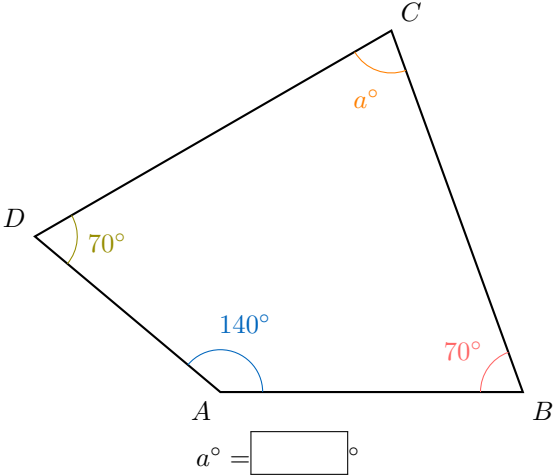**Ex 11:** Find the unknown angle in the quadrilateral below:

$x° = \boxed{}°$

1

Ex 12: Find the unknown angle in the quadrilateral below:

$y° = \boxed{}°$

Ex 13: Find the unknown angle in the quadrilateral below:

$z° = \boxed{}°$

Ex 14: Find the unknown angle in the quadrilateral below:

$a° = \boxed{}°$

C.2 FINDING AN UNKNOWN ANGLE

Ex 15: Find the unknown angles in the quadrilateral below:

$x° = \boxed{}°$
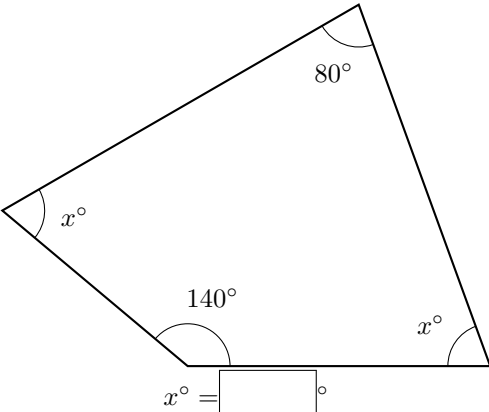
Ex 16: Find the unknown angles in the quadrilateral below:

$x° = \boxed{}°$
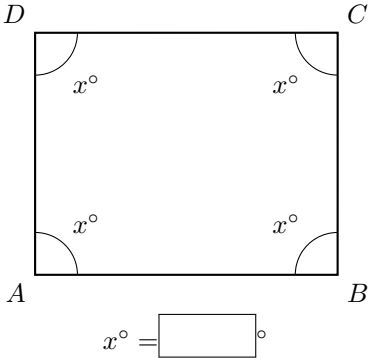
Ex 17: $ABCD$ is a rectangle. Find the unknown angles in the triangle below:

$x° = \boxed{}°$ and $y° = \boxed{}°$
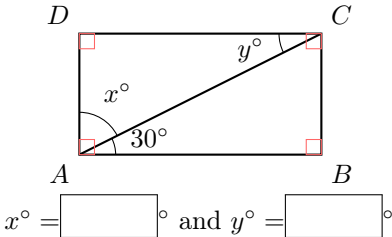
Ex 18: $ABCD$ is a parallelogram. Find the unknown angle in the quadrilateral below:

$x° = \boxed{}°$