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.

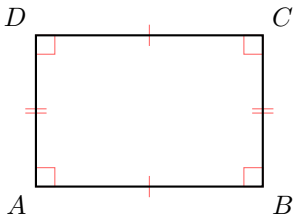
Ex 2: Construct a rectangle $ABCD$ with side lengths $AB = 4$ cm and $AD = 3$ cm using a ruler and a set square on paper.

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

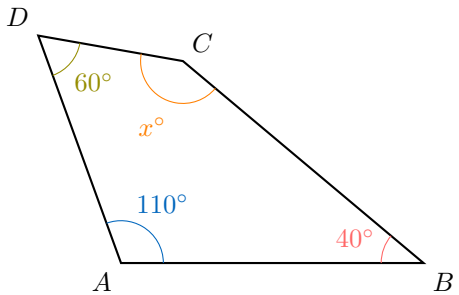
MCQ 10: A rectangle is a special type of parallelogram.

- ☐ True
- ☐ False

C ANGLES

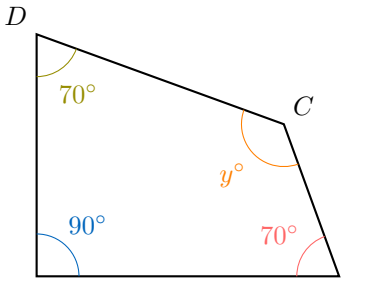
C.1 FINDING AN UNKNOWN ANGLE

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



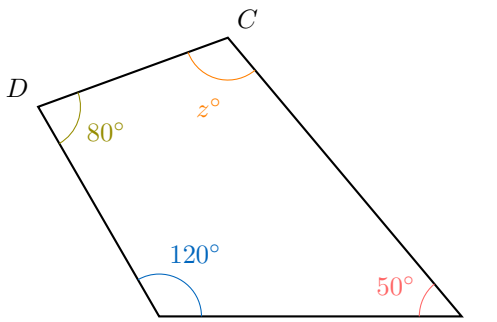
$x° =$ ☐°

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



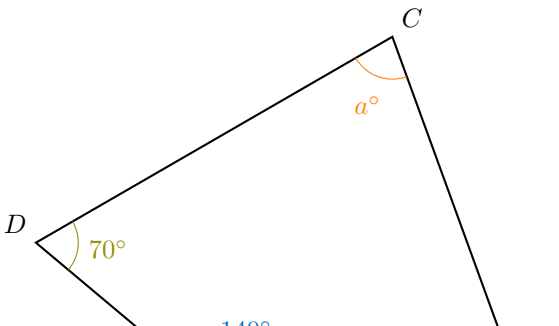
$y° =$ ☐°

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



$z° =$ ☐°

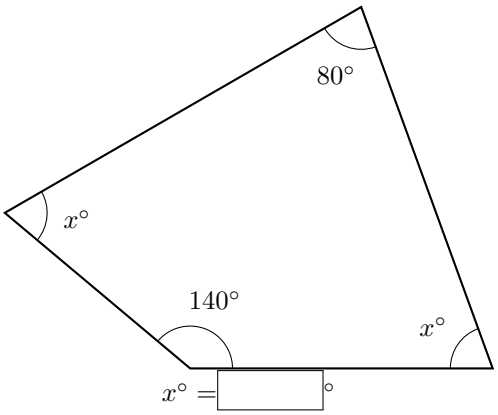
Ex 14: Find the unknown angle in the quadrilateral below:



$a° =$ ☐°

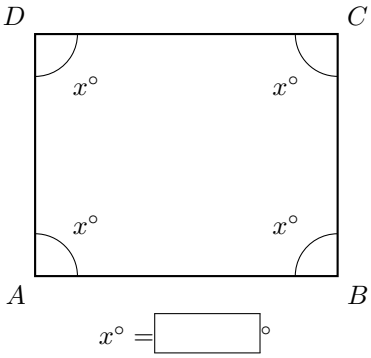
C.2 FINDING AN UNKNOWN ANGLE

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



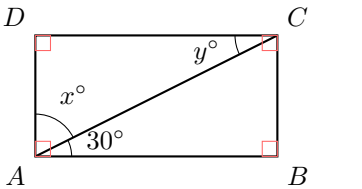
$x° =$ ☐°

Ex 16: Find the unknown angles in the quadrilateral below:



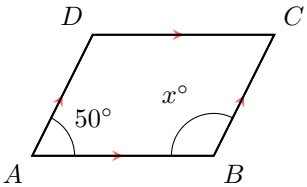
$x° =$ ☐°

Ex 17: $ABCD$ is a rectangle. Find the unknown angles in the triangle below:



$x° =$ ☐° and $y° =$ ☐°

Ex 18: $ABCD$ is a parallelogram. Find the unknown angle in the quadrilateral below:



$x° =$ ☐°