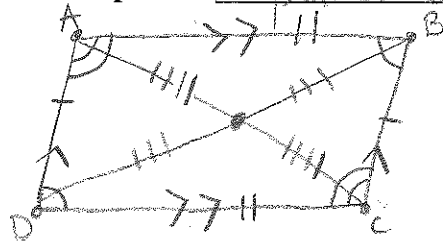


Objectives: Use properties of parallelograms, rectangles, rhombuses, and squares to solve problems.

Use your *parallelogram* and the drawings below to discuss and discover characteristics about each figure.

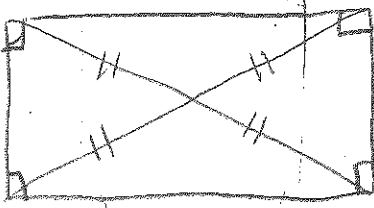
Parallelogram: a quadrilateral with two pairs of parallel sides.

- opposite sides are parallel
- opposite sides are \cong
- opposite angles are \cong
- consecutive angles are supplementary
- diagonals bisect each other.
- To name a *parallelogram*, use a \square symbol, and then name the vertices \square ABCD consecutively.



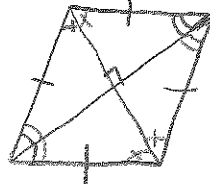
Rectangle: a quadrilateral parallelogram with 4 \cong right angles.

- has same characteristics as a parallelogram
- diagonals not only bisect each other, but are also \cong .



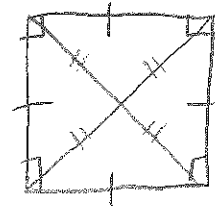
Rhombus: a quadrilateral with 4 \cong sides.

- has same characteristics as a parallelogram
- diagonals not only bisect each other, but bisect the angles also perpendicular.

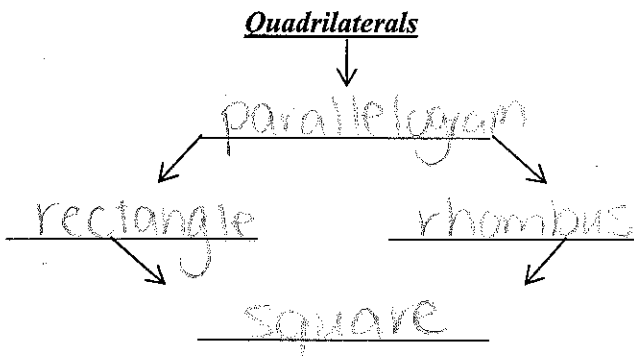


Square: a quadrilateral with 4 congruent sides & 4 congruent \angle 's.

- has same characteristics as a rectangle and a rhombus.



EX 1: Complete the *top-down* web of quadrilaterals based on the characteristics of the shapes.



EX 2: Three vertices of parallelogram ABCD are A(3, -8), B(-2, 2), and C(2, 6). Find D, and draw ABCD.

D(7, -4)

