

# 6.4

## **Rectangles, Rhombuses, and Squares**

# Exploring...

Open on the Sketchpad website the “6.4 - Rectangles, Rhombuses and Squares” sketch.

1) According to the tabs on the bottom of the sketch, what are the three types of special parallelograms?

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

2) The activity on the following slides is a “black out task”. Through the sketch, you are to investigate and discover certain things about these special parallelograms. In each box, draw the shape with symbols and cross out or “black out” any property that doesn’t belong.

# Rectangle

- Opposite sides parallel
- Opposite sides congruent
- All sides congruent
- Opposite angles congruent
- All angles are  $90^\circ$
- Consecutive angles supplementary
- Diagonals bisect each other
- Diagonals congruent
- Diagonals perpendicular
- Diagonals bisect each angle



# Rhombus

- Opposite sides parallel
- Opposite sides congruent
- All sides congruent
- Opposite angles congruent
- All angles are  $90^\circ$
- Consecutive angles supplementary
- Diagonals bisect each other
- Diagonals congruent
- Diagonals perpendicular
- Diagonals bisect each angle



# Square

- Opposite sides parallel
- Opposite sides congruent
- All sides congruent
- Opposite angles congruent
- All angles are  $90^\circ$
- Consecutive angles supplementary
- Diagonals bisect each other
- Diagonals congruent
- Diagonals perpendicular
- Diagonals bisect each angle



# Ordinary Parallelogram

**(That's not a rectangle or rhombus)**

- Opposite sides parallel
- Opposite sides congruent
- All sides congruent
- Opposite angles congruent
- All angles are  $90^\circ$
- Consecutive angles supplementary
- Diagonals bisect each other
- Diagonals congruent
- Diagonals perpendicular
- Diagonals bisect each angle



# Quadrilateral Venn Diagram

