




Classwork 6.4 - Rhombuses, Rectangles and Squares

Rhombuses, Rectangles and Squares are special types of parallelogram.

A RHOMBUS is a  having all congruent sides.

A RECTANGLE is a  having all congruent \angle s (90°).

A SQUARE is a  having all congruent sides AND all congruent \angle s (90°).

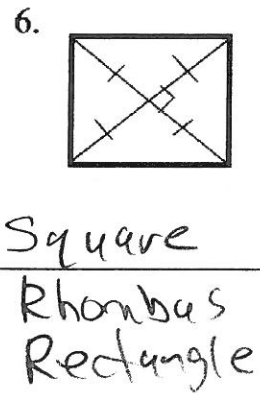
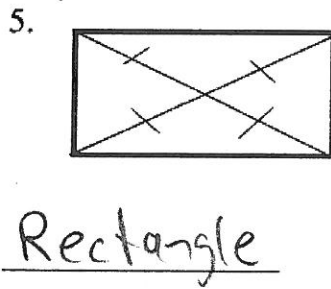
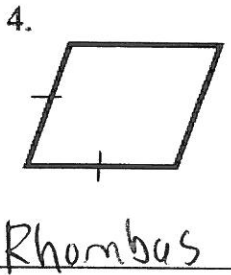
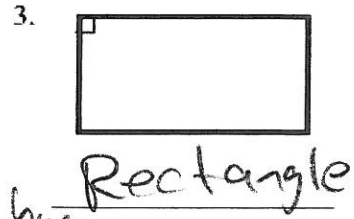
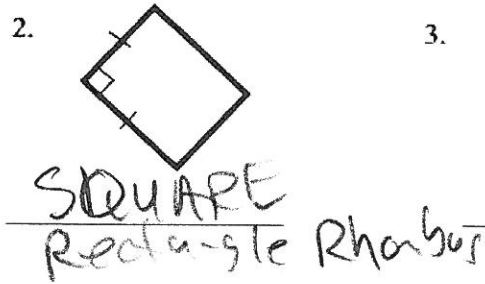
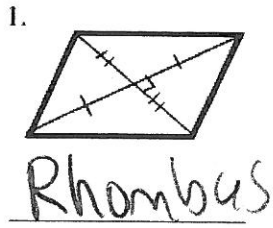
Group Task (15 min)

Each member of your group has a worksheet with a rectangle, rhombus and square drawn. Each worksheet is different. Draw, measure, and record the lengths of the diagonals of each figure. Then, measure the angles created by the diagonals both at the point of intersection of the diagonals and at each vertex. Compare your findings with the other members of your group to make conjectures about the special properties of rhombuses, rectangles and squares and complete the table below.

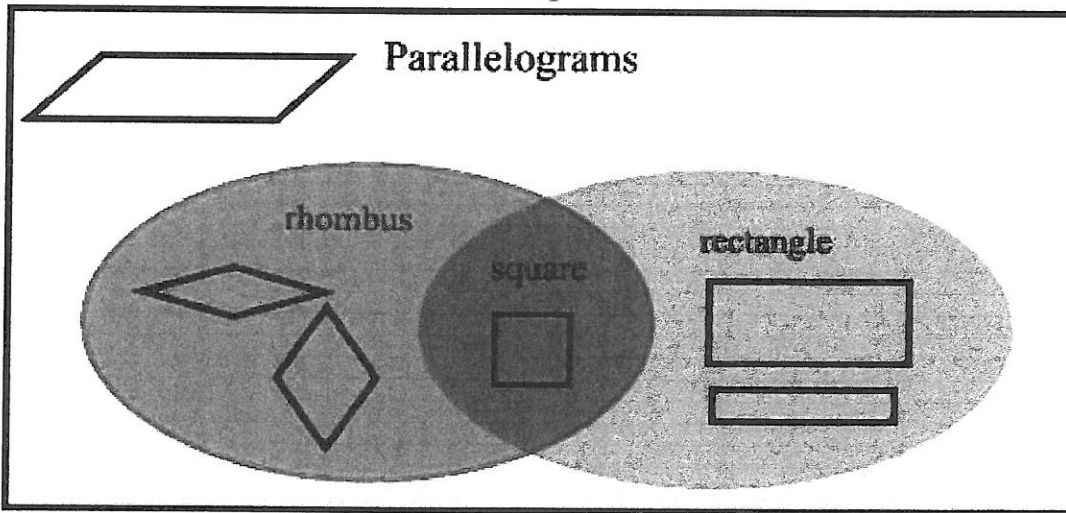
Mark the box of the figure(s) for which the property is ALWAYS true.

Special Properties	Rectangle	Rhombus	Square
All \angle 's are \cong .	✓		✓
All sides are \cong .		✓	✓
Diagonals are \cong .	✓		✓
Diagonals are \perp .		✓	✓
Diagonals bisect the vertex angles.		✓	✓
Both pairs of opposite sides are \cong .	✓	✓	✓
Both pairs of opposite \angle 's are \cong .	✓	✓	✓
Any two consecutive vertex \angle 's are supplementary.	✓	✓	✓
Diagonals bisect each other.	✓	✓	✓

Each figure is a **parallelogram** identify what special type it is



Use your findings in the table as well as the Venn Diagram below to answer the following questions.



Determine whether the given statements are **ALWAYS**, **SOMETIMES**, or **NEVER** true.

1. A square is a rhombus. ALWAYS

2. A rhombus is a square. SOMETIMES

3. A rectangle is a square. SOMETIMES

4. A parallelogram is a rectangle. SOMETIMES

5. A rhombus is a rectangle. SOMETIMES

6. A square is a parallelogram. ALWAYS