



If-Then Statements:

- a. Determine if each statement is true or false. If you think it's true, explain why. If you think it's false, show a counter-example.
- b. Write the converse of each statement. Determine if it is true or false, and as with the statement, explain why or show a counter-example.

1. If a line has a slope of -2, then this line is parallel to the line modeled by the equation $y - 3 = \frac{1}{2}(x + 5)$.

2. If a parallelogram has equal sides, then it is a square.

3. If a quadrilateral has four congruent sides and no right angles, then it is a rhombus.

4. If a triangle has angles that measure 35° and 55°, then it is a right triangle.

5. If a quadrilateral has a 90° angle, then it is a rectangle.

6. If a quadrilateral is a kite, then it has two pairs of congruent sides.

7. If a triangle is a right isosceles triangle, then it has two sides the same length.