

## Handout: Justifying True/False Statements

Decide whether the following statements are **true** or **false** and develop a clear justification or refutation for each statement.

- a) All polygons with four straight connected sides are quadrilaterals.
- b) Any parallelogram with at least one right angle is a rectangle.
- c) If the statement "*A square is a parallelogram*" is true, then which of the following are true as well?
- 1) A parallelogram is a square. (converse)

2) If a shape is not a square, it is not a parallelogram. (inverse)

3) If a shape is not a parallelogram, it is not a square. (contrapositive)