**6.3 Showing Quadrilaterals are Parallelograms**

**Theorem 6.6**

**Words:** If both sides of a quadrilateral are congruent, then the quadrilateral is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Symbols:** ,If and , is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Theorem 6.7**

**Words:** If both pairs of opposite angles are congruent, then the quadrilateral is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Symbols:** If and. is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Example 1:

Tell whether the quadrilateral is a parallelogram. Explain.

a. b.

 

**Theorem 6.8**

**Words:** If an angle of a quadrilateral is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to both its consecutive angles are, then the quadrilateral is a parallelogram.

**Symbols:** If and ,

then is a parallelogram.

**Theorem 6.9**

**Words:** If a diagonals of a quadrilateral \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the quadrilateral is a parallelogram.

**Symbols:** and . is a parallelogram.

Example 2: Tell whether the quadrilateral is a parallelogram. Explain.

a. b.

 

c. d.

 

e. f.

 