G5-M5-Lesson 21

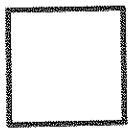
Finish each sentence below by writing "sometimes" or "always" in the first blank, and then state the reason why. Sketch an example of each statement in the space to the right.

a. A rectangle is *sometimes* a square because *a rectangle has 4 right angles, and a square is a special type of rectangle with 4 equal sides.*

This is a rectangle. It is ***not*** a square because all 4 sides are not equal in length.

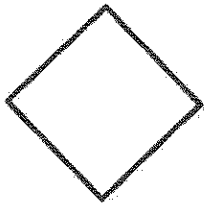
b. A square is *always* a rectangle because *a rectangle is a parallelogram with 4 right angles. A square is a rectangle with 4 equal sides.*

This is a square and a rectangle because it has 4 right angles and 4 equal sides.



c. A rectangle is *sometimes* a kite because *a square fits the definition of a kite and rectangle. A kite has two pairs of sides that are equal, which is the same as a square.*

This is a kite, a square, and a rectangle. It has 4 right angles and 2 sets of consecutive sides equal in length.

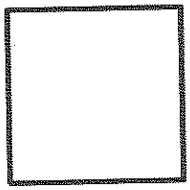


d. A rectangle is *always* a parallelogram because *it has two pairs of parallel sides.*

All rectangles can also be called parallelograms.

e. A square is *always* a trapezoid because *it has at least one pair of parallel sides.*

This square, and all squares, has 2 pairs of opposite sides that are parallel. All squares can also be called trapezoids.



f. A trapezoid is *sometimes* a parallelogram because *a trapezoid has to have at least one pair of parallel sides, but it could have two pairs, which fits the definition of a parallelogram.*

This figure is a trapezoid but ***not*** a parallelogram. It only has 1 pair of opposite sides parallel. (The "top" and "bottom" sides are parallel.)