Geometry

Rectangles

Our Polygon Family Tree

Polygon

Triangle   Quadrilateral

Parallelogram   Trapezoid   Kite

Rectangle   Rhombus   Isosceles Trapezoid

Square
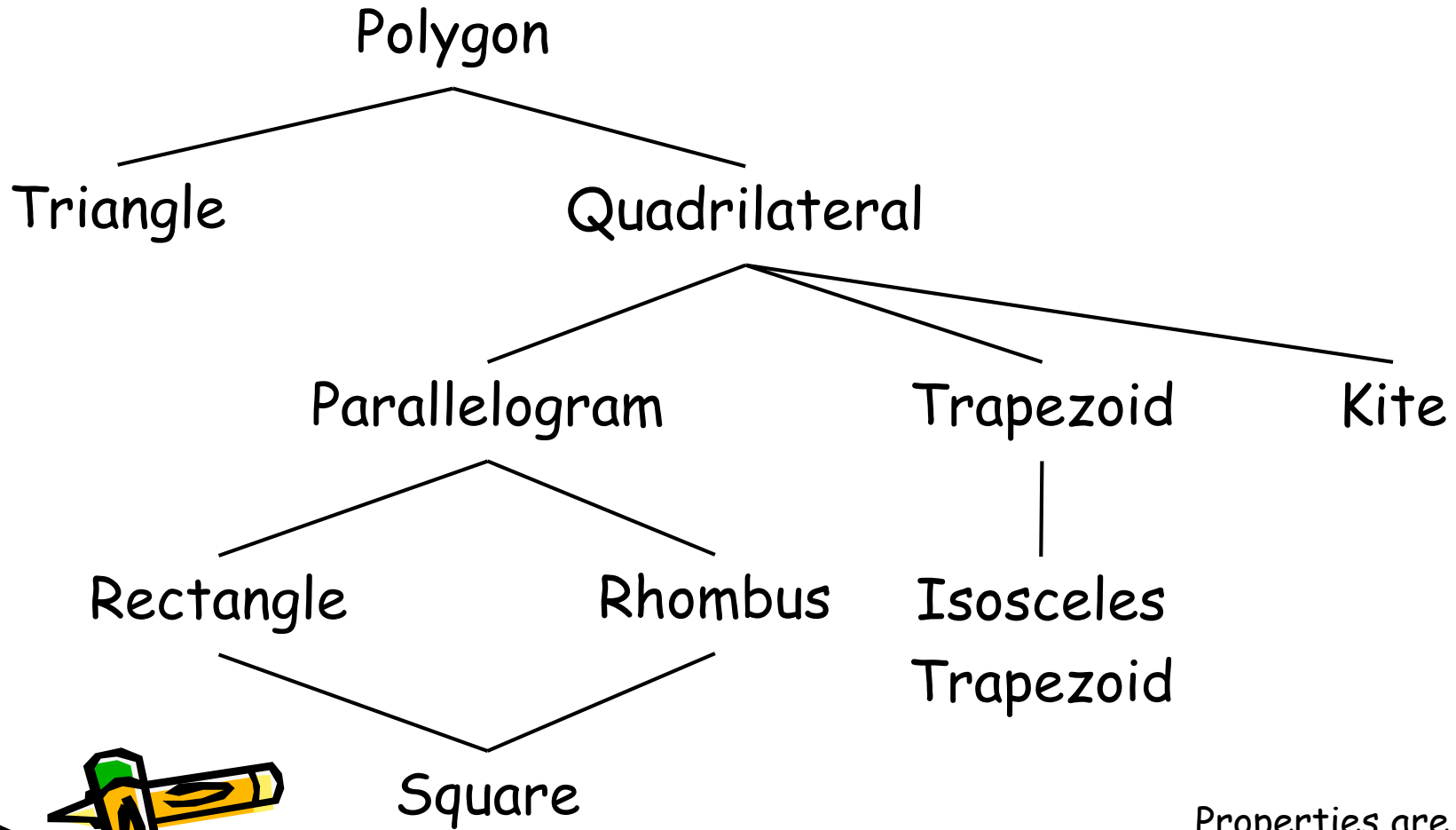
Properties are inherited as we move down the tree

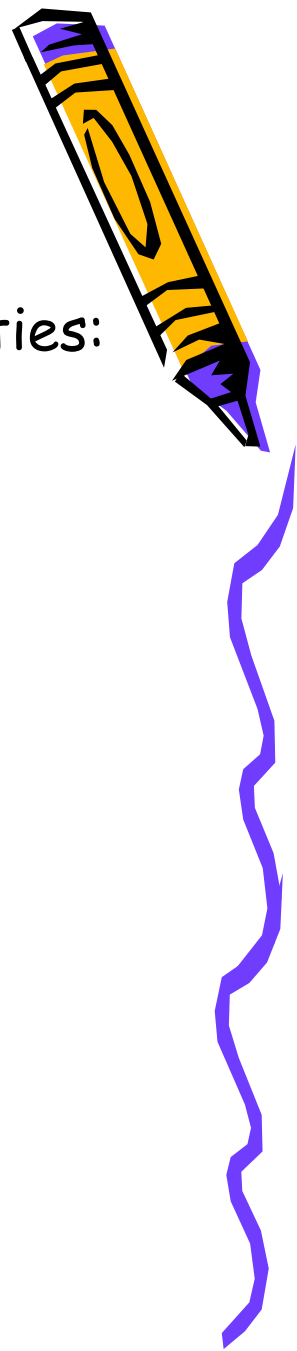# Rectangle

A rectangle is a parallelogram with a few added properties:
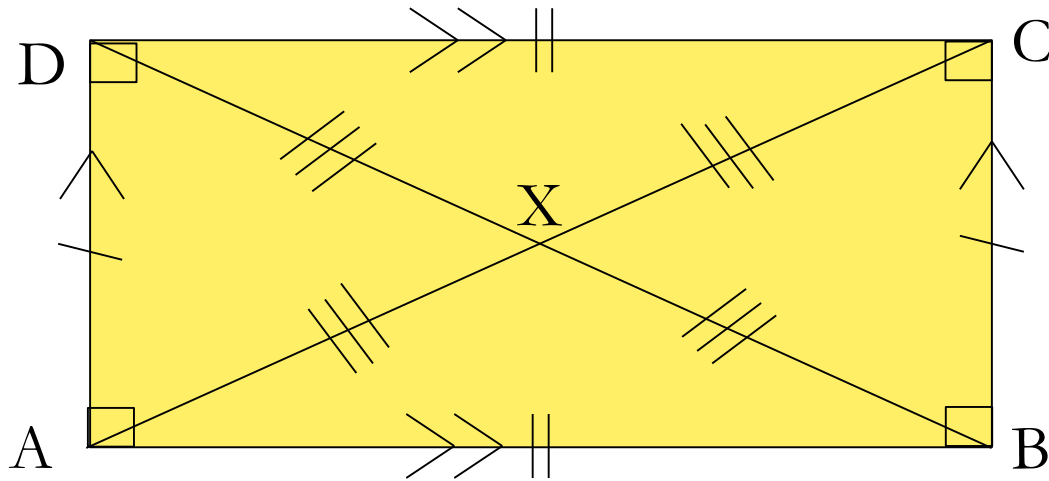
    Properties of a parallelogram:

        1.

        2.

        3.

        4.

        5.

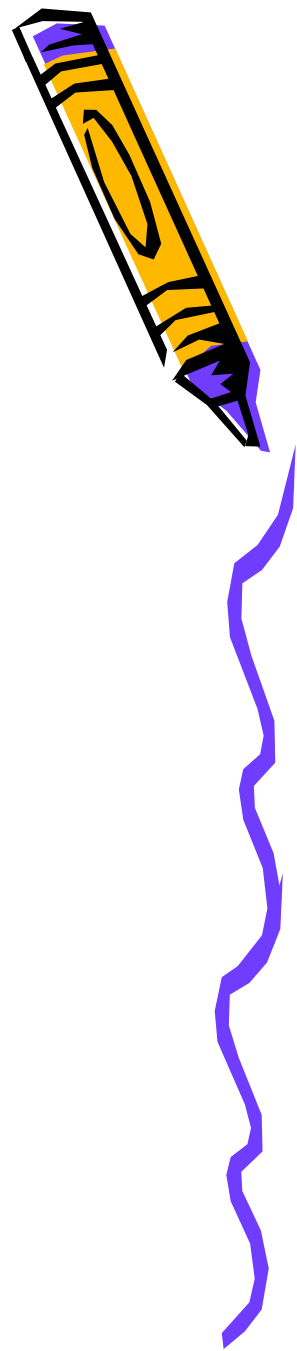 Plus:

        6.   Diagonals are congruent

        7.   4 right angles

Rectangle

Notice that since the diagonals of a rectangle are congruent and they bisect each other, the result is 4 isosceles triangles.

Rectangle

The diagonals of rectangle *PQRS* intersect at *T*. Given that $m\angle RPS = 62°$ and $QS = 18$, find the indicated measure.

17. $m\angle QPR$

18. $m\angle PTQ$

19. ST

20. PR