Name _____ Mr. Schlansky Date _____ Geometry

Constructing Triangles

1. Using a compass and straightedge, and \overline{AB} below, construct the following triangles:



2. Using a compass and straightedge, and \overline{AB} below, construct the following triangles:



3. On the ray drawn below, using a compass and straightedge, construct an equilateral triangle with a vertex at R. The length of a side of the triangle must be equal to a length of the diagonal of rectangle *ABCD*.



4. On the ray drawn below, using a compass and straightedge, construct an isosceles triangle with a vertex at R. The length of the congruent sides must be equal to DB and the length of the third side must be equal to DC.



R

5. Line segments \overline{AB} and \overline{CD} are shown below. Use a compass and straightedge to construct an equilateral triangle with a vertex at G whose side lengths are equal to the sum of the lengths of segments \overline{AB} and \overline{CD} . [Leave all construction marks.]



6. Use a compass and a straightedge to construct an isosceles triangle whose congruent sides are equal to AB and third side is equal to CD.

