Name $\qquad$ Date $\qquad$
Mr. Schlansky
Geometry

## Constructing Triangles

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

2. Using a compass and straightedge, and $\overline{A B}$ 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 $A B C D$.

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.

5. Line segments $\overline{A B}$ and $\overline{C D}$ 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 $\overline{A B}$ and $\overline{C D}$. [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 .

