## Chapter 3 Constructions Assignment \#2

Using only a compass and a straightedge, do the constructions in the following problems.

1. Bisect the angles (with a compass and straightedge) below.

2. Construct an angle with each given measure and label it. Remember, you may use only your compass and straightedge. No protractor!
a.) $90^{\circ}$ (Hint: What kind of lines could you construct to give you a $90^{\circ}$ angle?)
b.) $45^{\circ}$ (Hint: Think angle bisector!)
c.) $135^{\circ}$ (Hint: Think angle bisector!)
3. Construct a line parallel to the line below that goes through point $P$.

4. Construct trapezoid $T R A P$ with $\overline{T R}$ and $\overline{A P}$ as the two parallel sides. (There are many solutions!)

5. Given the three line segments below, construct $\triangle M A S$.

6. Given the two line segments and $\angle O$ below, construct $\triangle D O T$. Describe the steps in your construction.

7. Given the two line segments below, construct isosceles triangle $C A T$ with perimeter $y$ and length of the base equal to $x$.

