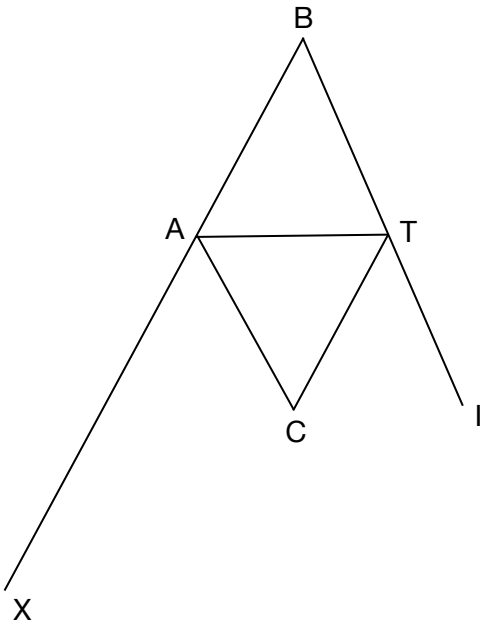
Name: _____

Date: _____

Math 101: Assignment 11

1. If $\triangle BAT$ is isosceles with $\overline{BA} = \overline{BT}$ and $\overline{BA}$ extends to form $\overline{AX}$ and $\overline{BT}$ extends to form $\overline{TI}$ and $\triangle CAT$ is equilateral, then $\angle CAX = \angle CTI$.

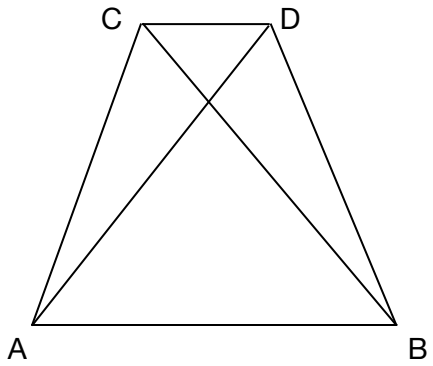


Given:

Prove:

Proof

2. Name the angles, triangles, and line segments in the diagram.



3. What angles are sums of other angles?

4. **Proposition 1.8 (Theorem):** If two triangles have the two sides equal to two sides respectively, and also have the base equal to the base, then they also have the angles equal, which are contained by the equal straight lines.

a. What is given?

b. What do we need to prove?

c. Draw a diagram of what is given and what we need to prove.

Look up the proof online and write it here. Write as many steps, or use figures, or anything that helps you understand. Be ready to explain the proof in class.

<u>Proof</u>