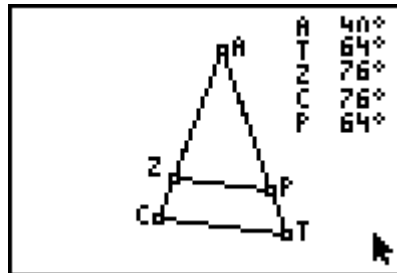




Exploring angle measures

In Cabri Jr. open the file **ANGLE**. You will see $\triangle ZAP$ within $\triangle CAT$. The angle measures are shown next to the triangle. Please note that P refers to $\angle APZ$ and Z refers to $\angle AZP$.

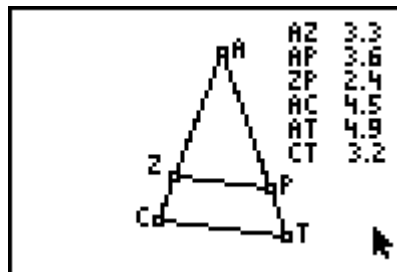
1. Drag points A , C , or T . What do you notice about the angles when comparing $\triangle CAT$ to $\triangle ZAP$?



2. Drag point P . What do you notice about the angles?

Now open the file **SIDE**. You will see the same $\triangle ZAP$ within $\triangle CAT$. The side lengths are shown next to the triangle.

3. Drag points A , C , or T . What do you notice about the side lengths when comparing $\triangle CAT$ to $\triangle ZAP$?



4. Drag point P . What do you notice about the side lengths? Are they ever the same?

5. When are $\triangle CAT$ and $\triangle ZAP$ similar triangles? Congruent triangles?