**ACC GEO Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7.3 Similar Triangles Day 2**

Two triangles are similar if:

* 2 angles are congruent: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* 3 sides are proportional: \_\_\_\_\_\_\_\_\_\_\_\_\_
* 2 proportional sides and the included angle:\_\_\_\_\_\_\_\_\_\_

**Example 1**: You want to measure the height of the Sears Tower in Chicago. At 1pm, the length of a 12 foot pole’s shadow was 2 feet. The Sears Tower’s shadow was 242 feet. How tall is the tower?

**Example 2:** To estimate the height of the Jin Mao Tower in Shanghai, a tourist who is 1.92 m tall, sights the top of the tower in a mirror on the ground. He places the mirror 87.6m from the base of the tower and stands .4m away from the mirror.