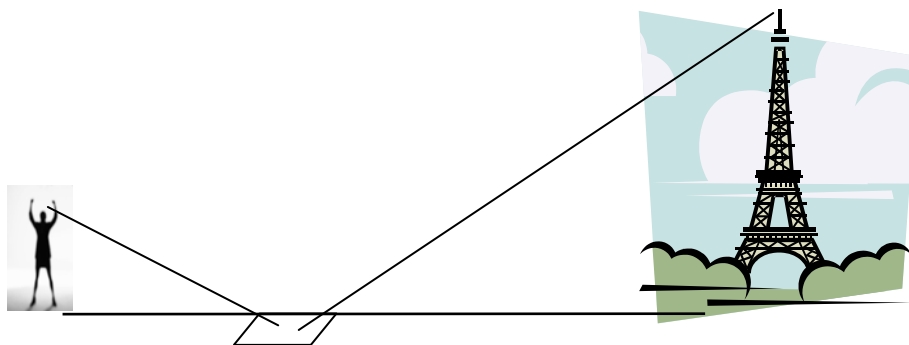


Solving Height Problems Using Similar Triangles

Name _____

Date _____



Find an object's height indirectly, by using similar Triangles

Materials needed: a yardstick, a mirror, a partner.

Procedure:

- 1) With a partner, measure your height in inches to the nearest half inch.
- 2) Choose an object in the room. Lay the mirror on the floor so the center of the mirror is 36" from the object. Leave the mirror in place on the floor. Back away from the mirror until you can see the top of the object in the center of the mirror.
- 3) Measure the distance from the arch of your foot to the center of the mirror.
- 4) Use this data to set up a proportion for finding the height:
 - a) Your height,
 - b) Distance object is from mirror center
 - c) Distance you must stand from mirror center to see the top of the object

Object	Set up and solve a proportion to find height	Height of object