

Attach a piece of cardboard to the edge of the protractor to use as a sighting guide. Attach a string, with a paperclip attached, to the center of the base of the protractor base. Students sight down the edge of the clinometer and move to a point where they are looking at the top of the tree with the weight hanging on the 45-degree mark. Have a second student monitor the protractor to check for the angle. This forms an isosceles triangle meaning the distance from the viewer to the base of the tree is equal to the height of the tree (from the viewer's eyes to the top). Measure the distance to the tree and add the height of the viewer's eyes. This will give you the height of the tree.

