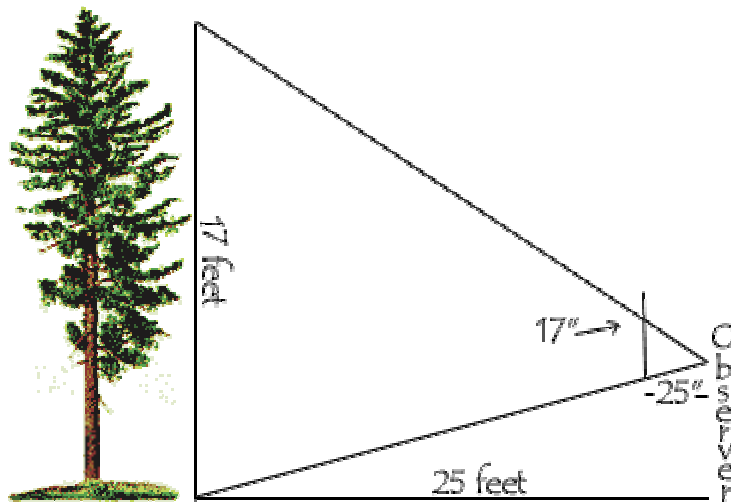


## Measuring the height of trees



The heights of trees (or any other tall object) can easily be found using a device called a hypsometer. A hypsometer is basically a long stick divided into even units used to find height by triangulation\*. A yardstick or metre stick will work just fine. If you are using a yardstick, stand exactly 25 feet from the tree being measured. Hold the yardstick, with the zero end downward, 25 inches from your eye. Line up the bottom of the yardstick with the base of the tree. Without moving your head, look to the top of the tree. Where it crosses the yardstick, read off the measurement in inches. Each inch will equal one foot in the tree's height.

If the tree is taller than your hypsometer will measure, stand 50 feet away. Again hold it 25 inches from your eye, as before, only this time multiply your result by 2 to get the correct height. If it is taller still, then step back to 75 feet, multiplying your result by 3, or 100 feet, multiplying the result by 4, etc.

If you are using a metre stick, the procedure is basically the same. Stand 5 metres from the tree. Hold the metre stick 50cm from your eye. Each 10 centimetres will equal one metre of the tree's height. If standing at 10 metres, double the result; at 15m, triple it, etc. Granted, a five-metre tree isn't very tall, but it is a convenient scale to start with for the sake of mathematical progression.

\*Note: there are other types of hypsometers, all of which measure height or altitude. Another type of hypsometer measures elevation by noting what temperature water begins to boil; this boiling point decreases with an increase in elevation.