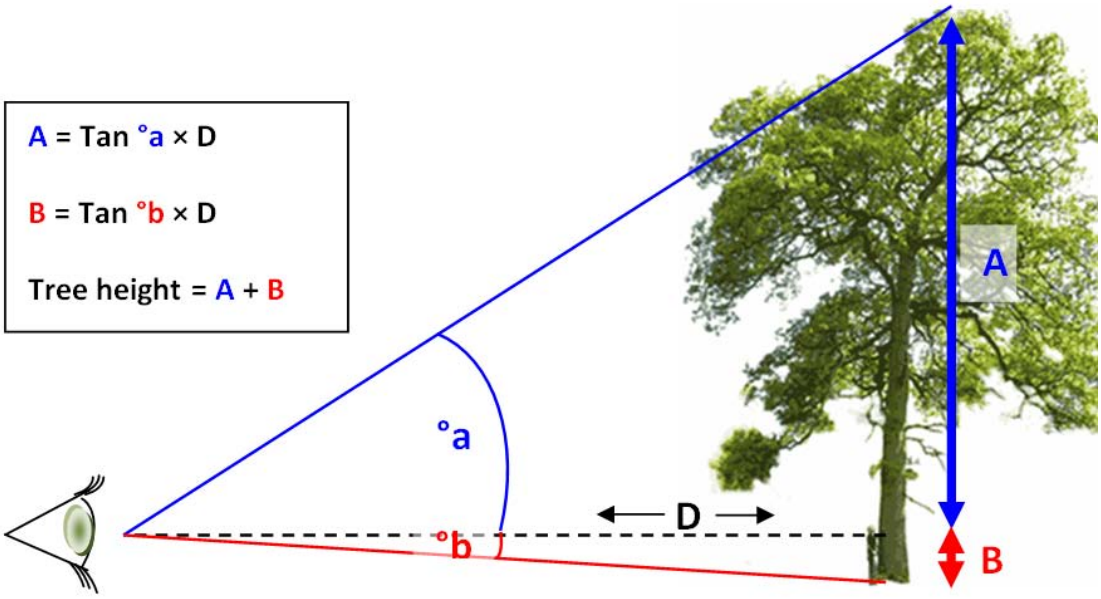
MEASUREMENT USING AN INCLINOMETER



EXPLANATION OF MEASUREMENT

A forester can determine the height of a tree using an inclinometer. Here is how:
The base of the inclinometer is the line of site indicated by the dotted line.
Measurements are usually taken at either 50 feet or 100 feet from the base of the object being measured.

1. Raise the inclinometer to your eye and look through its lens. Close your other eye. If you see a leveling bubble through the lens or elsewhere on the inclinometer, be sure it is level before you take any measurements.
2. Point the inclinometer at the top of the tree you are measuring and record the angle registered on the inclinometer's scale. (the angle marked “a” in the diagram)
3. Point the inclinometer at the bottom of the tree you are measuring and read the number indicated on the inclinometer's scale. (the angle marked “b” in the diagram)
4. Find the tangent of angle “a” and multiply it by the distance from the base of the tree. This is the height of the tree above your line of site. (A)
5. Find the tangent of angle “b” and multiply it by the distance from the base of the tree. This is the height of the tree below your line of site. (B)
6. Add A and B to determine the height of the tree.