

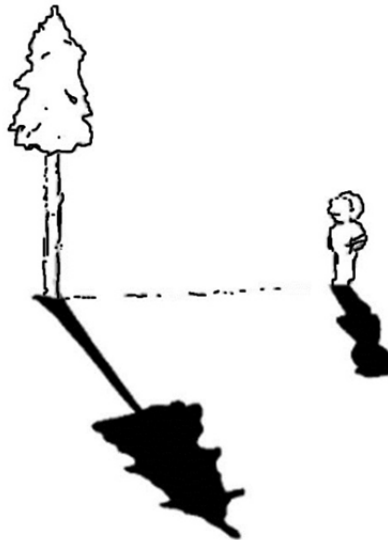
Proportional Method of Measuring Trees Using Shadows

How Big is Your Tree?

Determine the height your tree

On a sunny day, use a ratio comparison to determine tree height.

1. Have a friend stand in the sun so you can easily see their shadow.
2. Measure your friend's height. _____ inches.
3. Measure your friend's shadow. _____ inches.
4. Measure the shadow of your tree. _____ inches.



5. $\frac{\text{tree's height}}{\text{tree's shadow}} = \frac{\text{friend's height}}{\text{friend's shadow}}$ or $\frac{\text{tree's height}}{\text{friend's shadow}} = \frac{\text{friend's height} \times \text{tree's shadow}}{\text{friend's shadow}}$

$$\begin{array}{c}
 \text{friend} \\
 \text{_____ inches} \times \text{shadow} \\
 \text{_____ inches} = \text{tree} \\
 \text{_____ inches}
 \end{array}$$

6. Divide the tree height in inches by 12 to give you height in feet.
- tree height _____ inches / 12 = _____ feet _____ inches