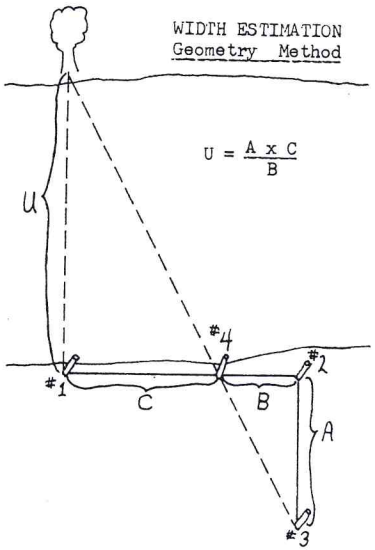
WIDTH ESTIMATION: Geometry Method

1. Stand at edge of width "U" to be estimated. Place stake (#1) at your feet.
2. Pick out a landmark (tree, rock, etc.) at edge of width directly opposite you.
3. Make an exact right face (90°).
4. Pace off a convenient distance (15 paces or so) and place another stake (#2).
5. Make another exact right face.
6. Pace off another distance ("A") and place a stake (#3).
7. Sight a line from last stake (#3) to landmark across width.
8. Have a companion place a stake (#4) on the line between stakes #1 & #2 on your line of sight.
9. Measure distance from #1 to #4 ("C"), #4 to #2 ("B"), and #2 to #3 ("A").
10. Use the following formula to estimate width "U":
    U = A x C / B



WIDTH ESTIMATION: Alternate Geom. Method
(Refer to sketch at right)

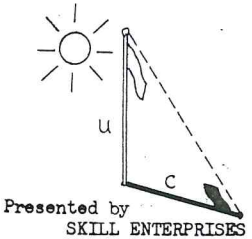
1. Steps #1 to #3 are the same.
2. Pace off a convenient distance (about 10 paces) and place stake #4.
3. Pace off the same distance and place stake #2. (Note: "C" equals "B")
4. Make another exact right face (90°).
5. Move out along line "A" until stake #4 and landmark are aligned. Place stake #3 at that point.
6. "A" is a good estimate of width "U".

WIDTH ESTIMATION: Hat Method

1. Stand at edge of width to be measured.
2. Place chin firmly against chest.
3. Adjust hat (or cap) so bill just "touches" opposite side of width as you look across width.
4. Make a right or left face.
5. Have companion mark spot where hat bill "touches" ground.
6. Measure distance from your position to marked spot for rough estimation of width.

ESTIMATION

* Personal Measurements
* Estimation of Heights
* Estimation of Widths



Presented by
SKILL ENTERPRISES
MANSFIELD, OHIO

PERSONAL MEASUREMENTS
(Fill in pencil; recheck often)

Height, normal ..... _____

with arms extended . _____

feet to eye level .. _____

feet to waist ..... _____

Average pace, level ..... _____

uphill _____ downhill _____

Hand span*, open ..... _____

closed ..... _____

* measured thumb to little finger

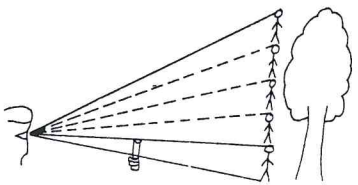
Length of foot ..... _____

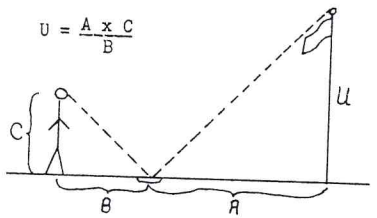
Nose to finger tip ..... _____

Finger tip to finger tip ... _____

HEIGHT ESTIMATION: Known Height Method

1. Have companion of known height stand at base of height to be estimated.
2. Stand a convenient distance away from companion.
3. Hold a stick out at arm's length.
4. Sight across stick so its top aligns with companion's head. Adjust grip on stick so thumb aligns with companion's feet.
5. Move stick up one length at a time counting number of lengths needed to equal height being estimated.
6. Multiply number of lengths by height of companion for answer.





HEIGHT ESTIMATION: Mirror Method

1. Place mirror about 15 paces from base of height to be estimated.
2. Move back from mirror until top of object is centered in mirror. Stand erect when doing this.
3. Measure distance from you to mirror ("B") and from mirror to height being estimated ("A").
4. Use your eye height as "C" in the following formula to estimate height "U": U = A x C / B

Note: A pan of muddy water can be used as mirror.

HEIGHT ESTIMATION: Shadow Method

1. Measure shadow "B" cast by object "A" of known height (person, yard stick or measured staff for example).
2. Measure shadow "C" of height to be estimated.
3. Use following formula to estimate height "U": U = A x C / B