

Lesson IIIb
Student Activity Sheet 4 - Forest Measurement
Tree Measurement

How to Measure Distance by Pacing

Name _____

With this activity, the student will learn to determine pace and, more specifically, to become familiar with his/her own pace.

Foresters, hunters, hikers, and those who enjoy the outdoors can determine distances by pacing. A pace is generally considered as the distance between two steps, or the distance covered in walking between the starting point of one foot and the next position of the same foot.

It is desirable to practice pacing on level as well as rolling terrain in order to calculate your average pace; the number of paces taken by an individual to cover a given distance may vary depending upon terrain and obstacles.

It is probably easier to count paces than steps as it cuts down the number of counts that one needs to keep in mind. To make it still easier to keep track of distance, which can be converted to map distance, individuals commonly use the tally. A tally is 330 feet. Four tallies are 1/4 mile; eight tallies, 1/2 mile; sixteen tallies, one mile. A smaller breakdown used in surveying is the chain which is 66 feet long. To learn to pace, it is only necessary to do the following:

1. Measure a known distance on a relatively level area. Pace this area at least three times. Determine the average distance of the pace.
2. Repeat this procedure on rolling terrain.
3. For use in the woods, keep track of the tallies by breaking off small pieces of twigs and keeping them on your pocket. Convert tallies to miles or fractional miles by remembering that four tallies equal 1/4 mile, etc.
4. To build proficiency, set up known distances and estimate the distances by pacing. Measure distances from a stationary point to building corners, large trees, etc.
5. To convert feet to meters, you multiply by .305.

Try the following pacing problems.

Pacing Problems

Without measuring or counting, how many paces (double steps) do you estimate you would walk in 50 feet? _____ paces

Now, measure your pace and answer the following questions:

How many paces do you count for 50 feet? _____ paces

Divide this by 50 for your paces for 1 pace. _____ ft./pace

What is your pace for 1 mile (5280 ft./mile)? _____

How many paces would you need to count to travel 7 miles? _____ paces

If you count 58 paces, how many feet have you gone? _____ feet

A forester is walking through a pine plantation. She wants to know how long the plantation is. She knows that she walks 16 paces in 50 feet. Every time she counts 16 paces, she breaks off a stick, and places it in her pocket. When she reaches the further edge of the plantation, she has 5 sticks in her pocket.

How many total paces did she walk? _____ paces

How many feet did she walk? _____ feet

Pacing worksheet is from
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