

Get where you're going

NAVIGATION TECHNIQUES



Olympia Navigation

4/27/2025

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Objectives

- Pacing
- Long Line Navigation
- Navigating Around a Object



Pacing

- For a given distance, how many paces do you take to travel it?
- Pacing = distance per two steps or one step with same foot
 - Example = 200 feet takes 40 paces to walk = $200 \div 40 = 5$ feet
 - Pacing changes based on terrain, slope, pack weight, vegetation
 - Most people have a pace between 4 to 5 feet per pacing

Distance to Pace	If you have a 4 foot pace	If you have a 4.5 foot pace	If you have a 5 foot pace
100 feet	= 25 paces	= about 23 paces	= 20 paces
200 feet	= 50 paces	= about 45 paces	= 40 paces
300 feet	= 75 paces	= about 67 paces	= 60 paces
400 feet	= 100 paces	= about 89 paces	= 80 paces
500 feet	= 125 paces	= about 112 paces	= 100 paces

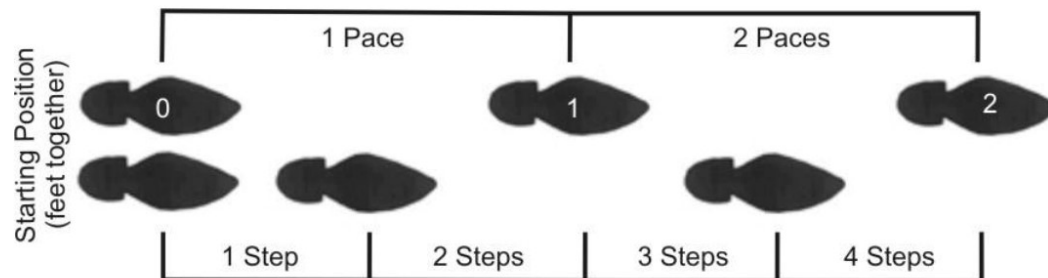


Pacing Continued

Question: Travel for 50 feet at some bearing.
How many paces will you need to take if your
pace distance is 3.9 feet?

Answer: 12.8 or ~13 paces

$$\text{Distance Walked} = (\text{Number of Paces}) \times (\text{Length of Pace})$$

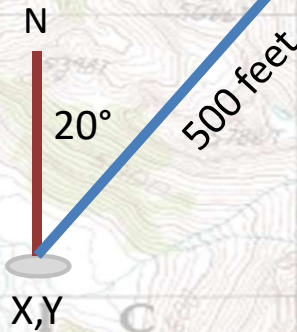


Long Line Navigation

Problem: Travel 500 feet at bearing of 20° utilizing the “Leapfrog” method with a partner. Starting at X,Y position.



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Long Line Nav Continued

Step 1: Everyone sets their compass bezel to the indicated bearing. Designate someone as the “Anchor/marker.”

Step 2: Anchor stays put at the known location and gives direction to the “Wanderer.”

Step 3: The Wanderer travels out some distance at approx. 20°.

Step 4: At a sufficient visual/audible distance, the Wanderer stops and adjusts according to Anchor’s direction. The Wanderer uses their compass back bearing to aim back at the Anchor. When both agree they are in line, the Wanderer stays put.



Long Line Nav Continued

Step 5: The Anchor paces to the Wanderer in as straight of a line as possible. Write down paces for that leg. Reverse roles.

Step 6: Repeat steps 1 thru 5.

Variations:

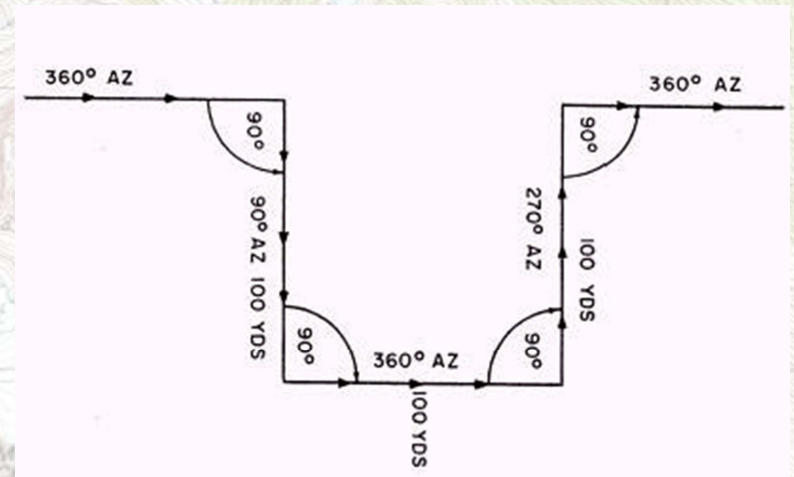
- 1) As above, alternate pacing between partners (best in difficult terrain, possible error with two different paces)
- 2) Dedicate one person as pacer (best in easy terrain, possible error when Anchor moves)
- 3) Both partners pace and average their results (best in easy terrain, possible error with two different paces)



Navigating Around an Object

When coming across an impassable object, a group can elect to use an offset to go around the object. Anything from a tree to a lake.

- Shoot a bearing that is 90° off the bearing you are following
- Pace off enough distance to clear the obstacle
- Return to following the original bearing until you have passed the obstacle
- Follow the back bearing of first offset
- Pace back the distance of the first offset
- Set compass back to original bearing
- Note: All at right angles (90° or 180°)





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