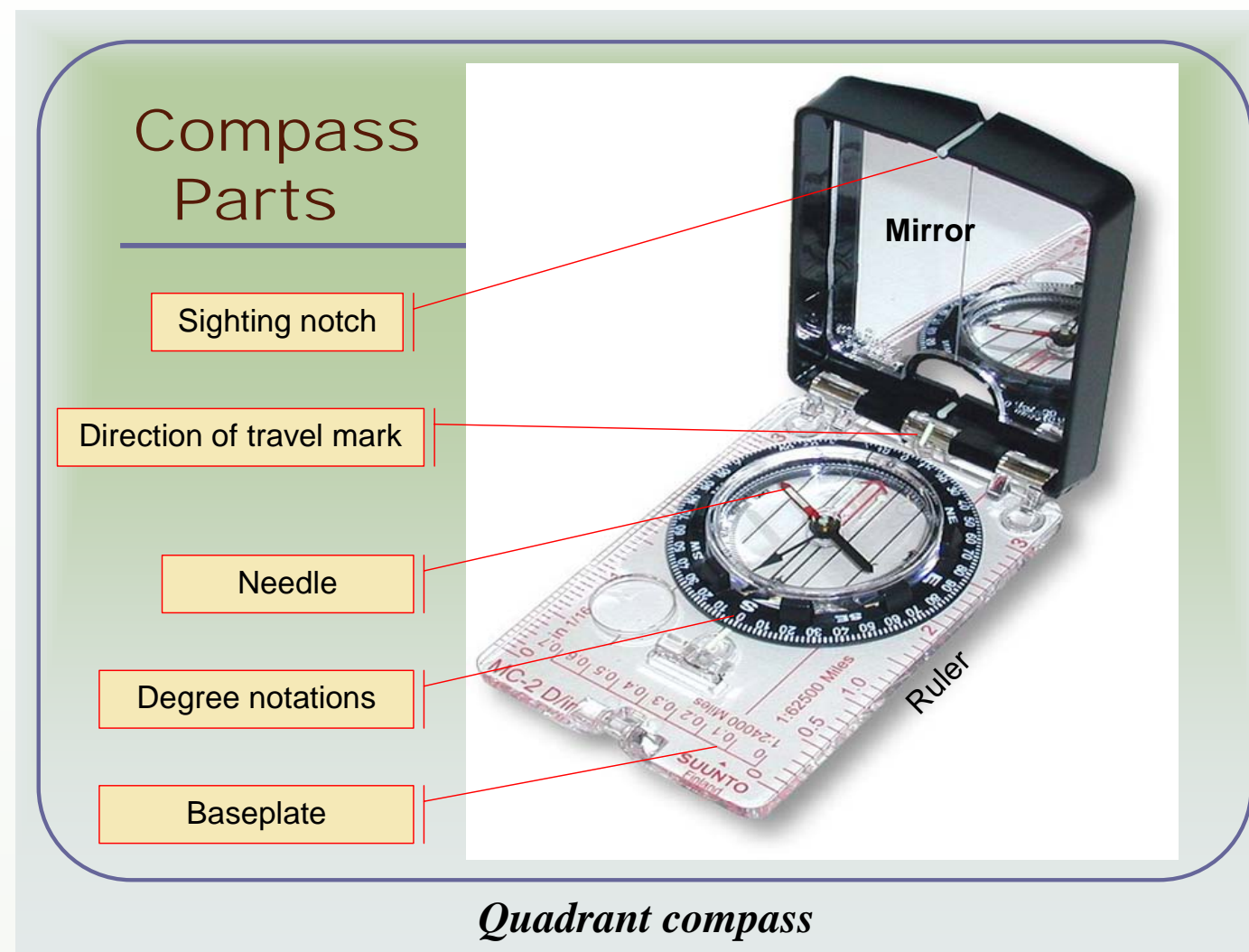
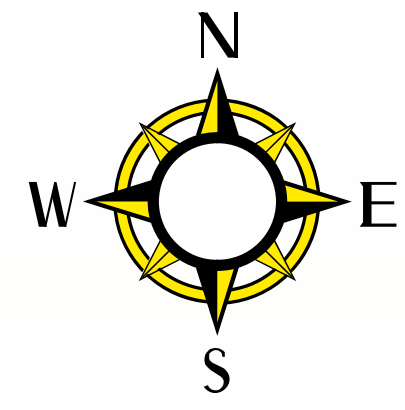


Navigating With a Compass



What do the numbers mean?

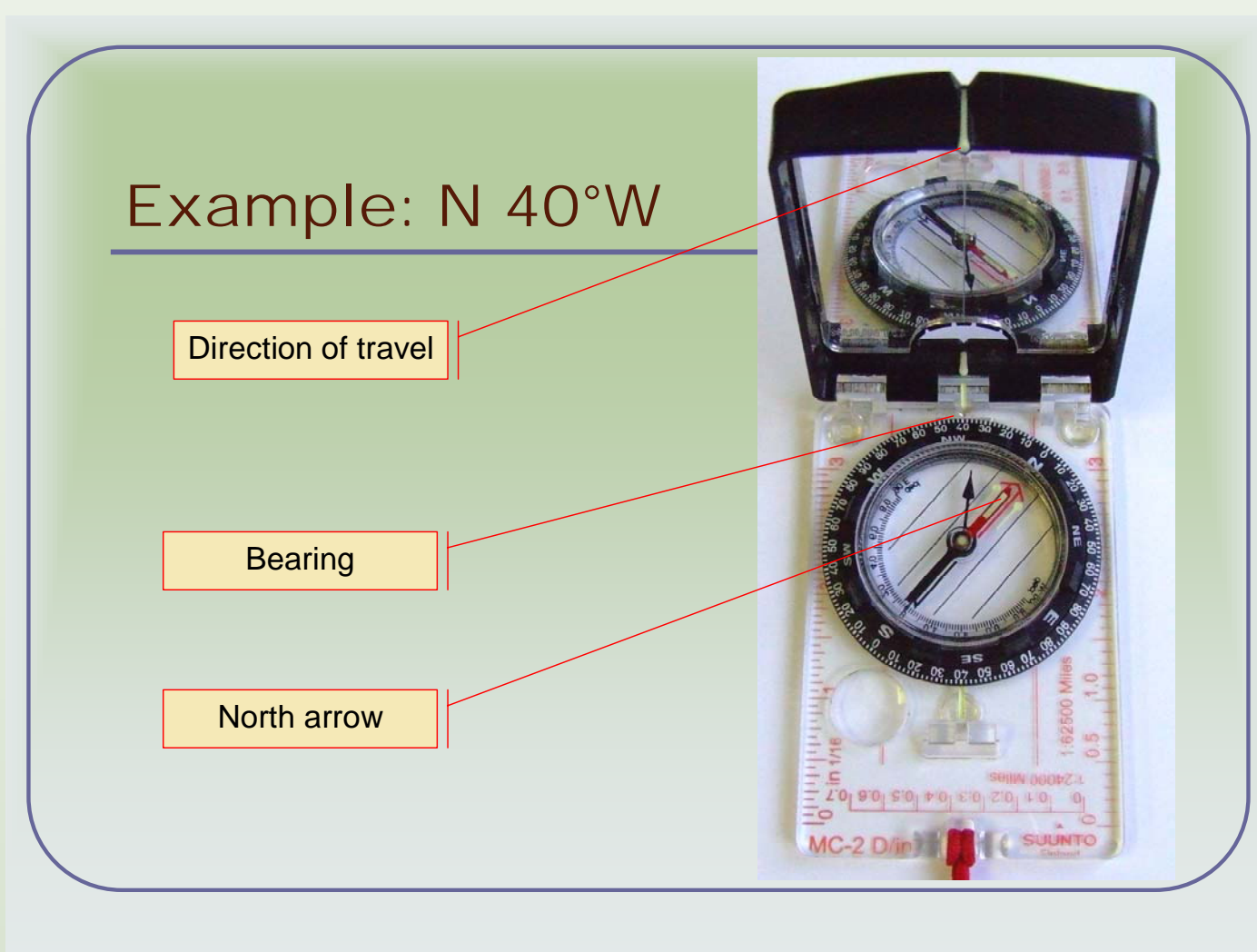
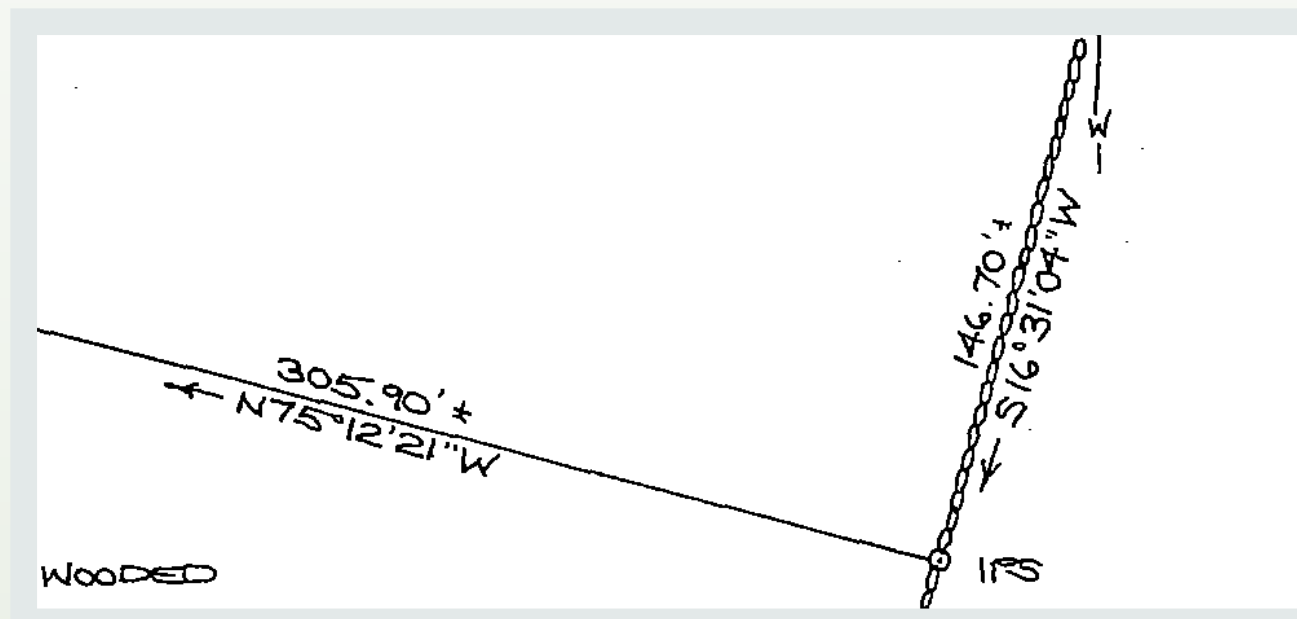
Bearings are in 90-degree quadrants

Example: S 72° W

Azimuths are in terms of the 360 degrees of a circle

Example: 184°

Surveys use bearings.



Following a bearing

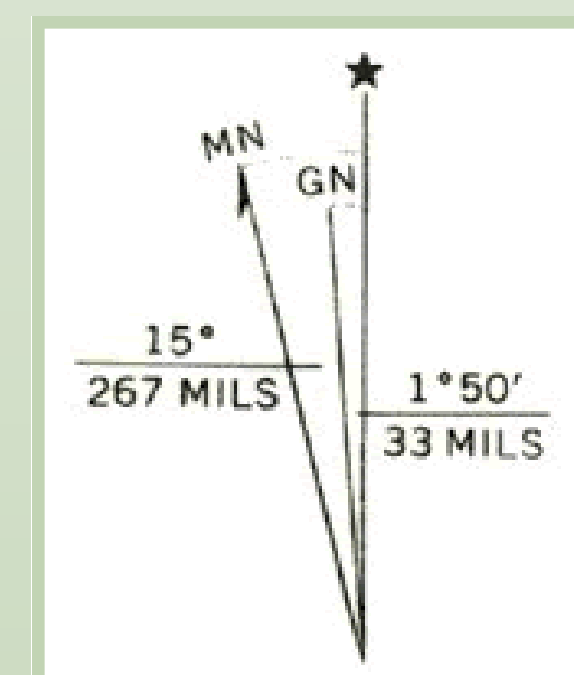
- Hold the compass flat
- Align the direction of travel mark with the bearing you desire
- Turn yourself until the red needle lines up with the red arrow on the baseplate
- Sight through the notch to a landmark
- Pace toward your landmark, checking your bearing every 100'

Which north do I use?

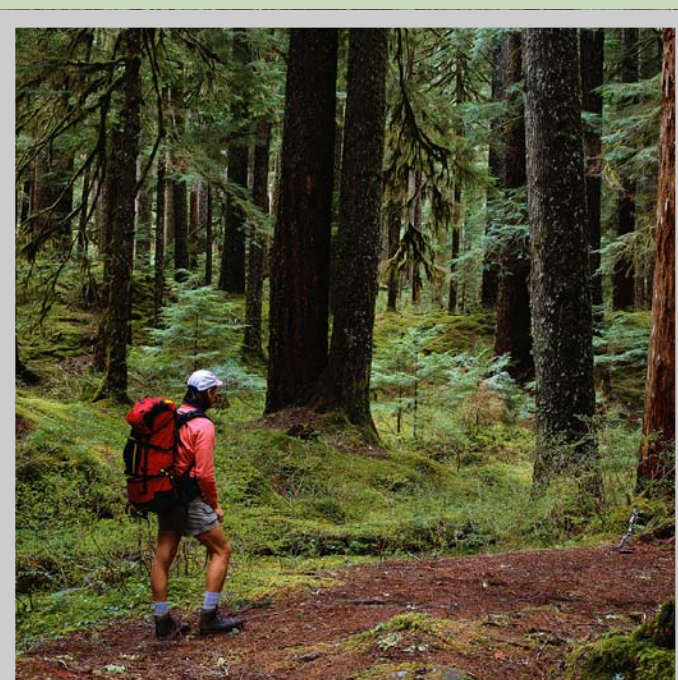
True north = The geographic north pole.

Magnetic north = earth's magnetic north pole (moving), relative to earth's axis. In New Hampshire, magnetic north is roughly 15 degrees west of true north.

Grid north = Parallel to a meridian on a map grid.



Use *magnetic north*, unless otherwise indicated on the survey.
This means you don't have to 'decline' your compass.



Knowing your pace

The easiest way to roughly measure long distances is to count paces. One pace is defined as two steps. To measure your pace, mark a distance of 100 feet on the ground. Walk this distance in your normal gait, starting with your *right* foot and keeping count of the number of times your *left* foot touches the ground. Count the number of paces it takes to travel 100 feet and divide 100 by this number to determine the length of your pace in feet. When pacing long distances, you can simply measure in increments of 100 feet by using your standard pace count.

Example: 5' pace = 20 paces per 100 feet

Taking a bearing from a map

- Draw a straight line from a point over to the map edge
- Align the compass axis N-S with the map edge
- Read on the compass circle the true bearing of your drawn line (ignore the floating needle)

Direction you want to determine

<http://erq.usgs.gov/isb/bubs/factsheets/fs03501.html>