

# Map Reading “Resection”

**Determine the position of an unknown point by sighting on a least two, but preferably three, known positions.**

# Steps for finding an unknown point

- 1. Locate a feature or object that is identifiable on both the ground and the map and mark the map location.**
- 2. Measure the magnetic azimuth to the known position and convert the magnetic azimuth to a grid azimuth.**
- 3. Change the grid azimuth to a back azimuth and draw a line from the know position backwards toward your unknown position.**
- 4. Locate a second feature or object that is identifiable on both the ground and the map and mark the map location.**
- 5. Measure the magnetic azimuth to the second known position and convert the magnetic azimuth to a grid azimuth.**
- 6. Change the grid azimuth to a back azimuth and draw a line from the second known position backwards toward your unknown position.**
- 7. The point where the two lines intersect is your location.**

# Finding Back Azimuth

## Rule # 1

If the azimuth is **MORE** than 180 degrees, then subtract 180 degrees.

## Rule # 2

If the azimuth is 180 degrees or **LESS**, then add 180 degrees.