

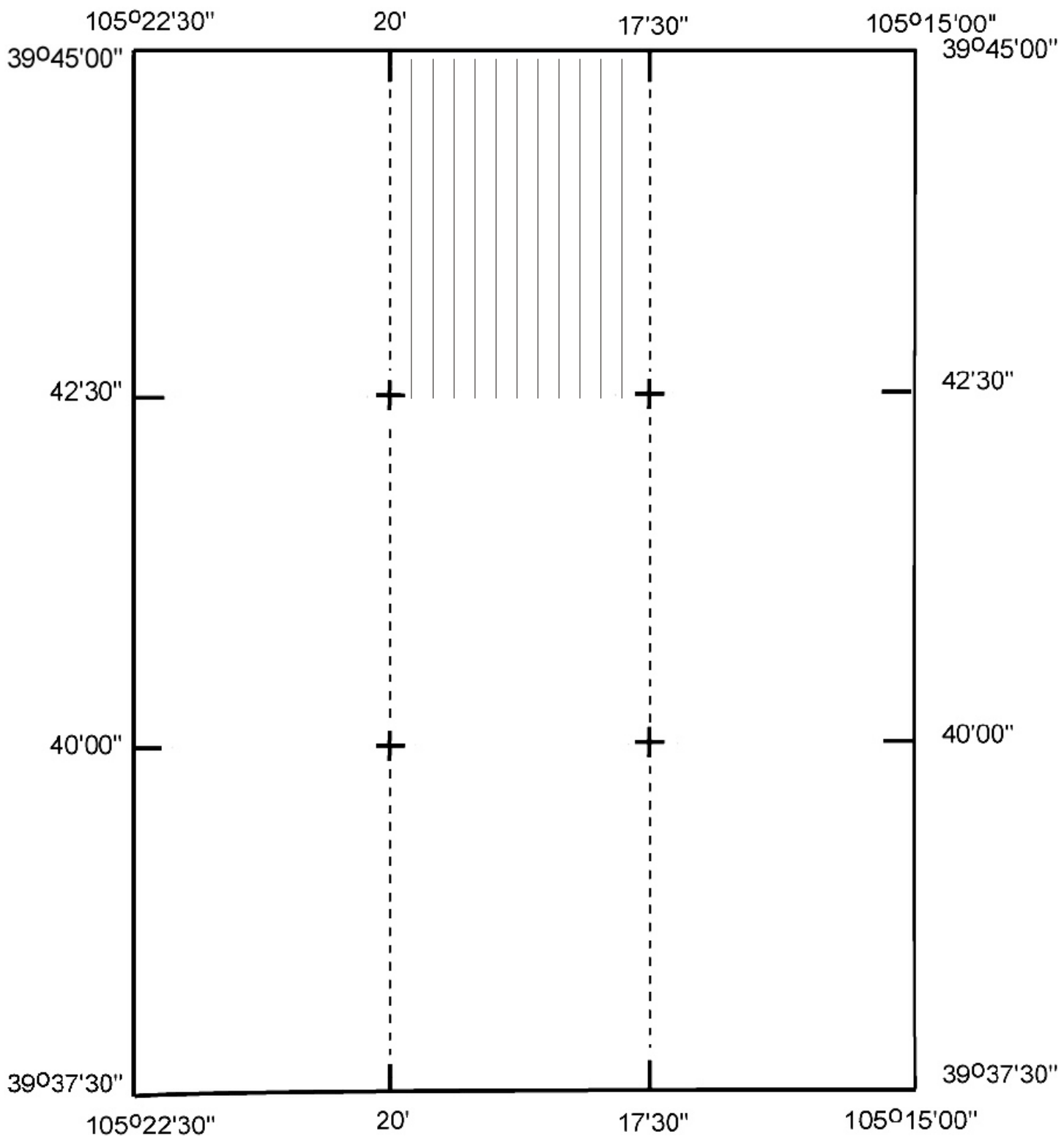
TEACHING POINT PLOTTING

The figures on the following pages can be used to help teach your students how to plot points for their Map and Compass Field Day. Some are taken from *Chapter 9 Mountain Navigation by Map and Compass*.

The first figure shows the layout of the grid on a USGS topographic map (7.5 minute series). The crosses are spaced 2' 30" apart, close enough on the map to construct a grid of north-south lines with a 12" ruler. Start by drawing a line between a cross and the corresponding tick mark at the top edge of the map, then use that line to lay out a series of north-south lines with 1" to 1.5" spacing.

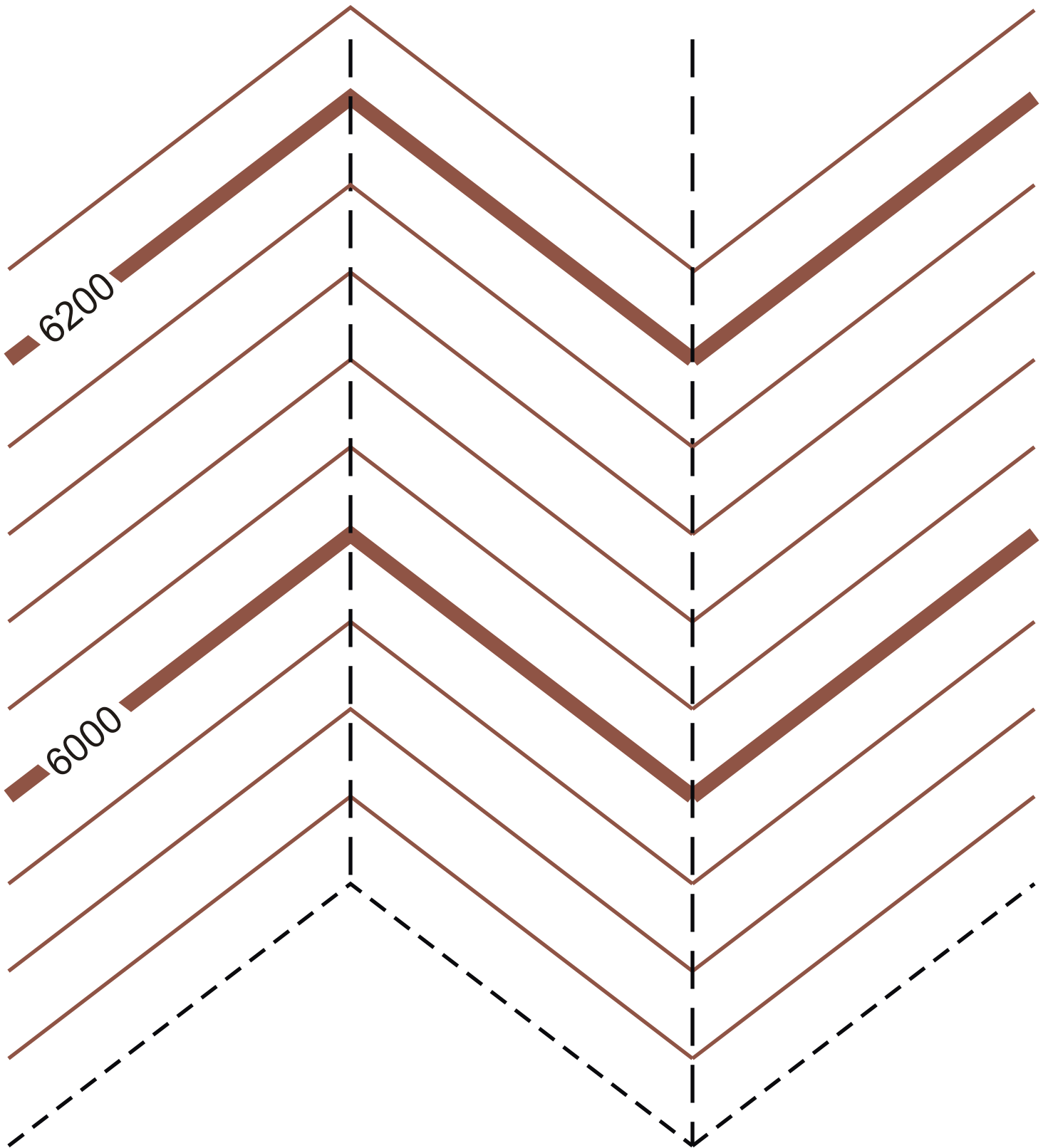
The second figure is a chevron that can be used to show the behavior of contours in ridges and in valleys. Fold the page along the vertical dashed lines with the left crease forming a valley and the right one forming a ridge. Hold it so the brown contour lines are level. Cutting off the section below the lower dashed line allows you to set the folded page on a flat surface.

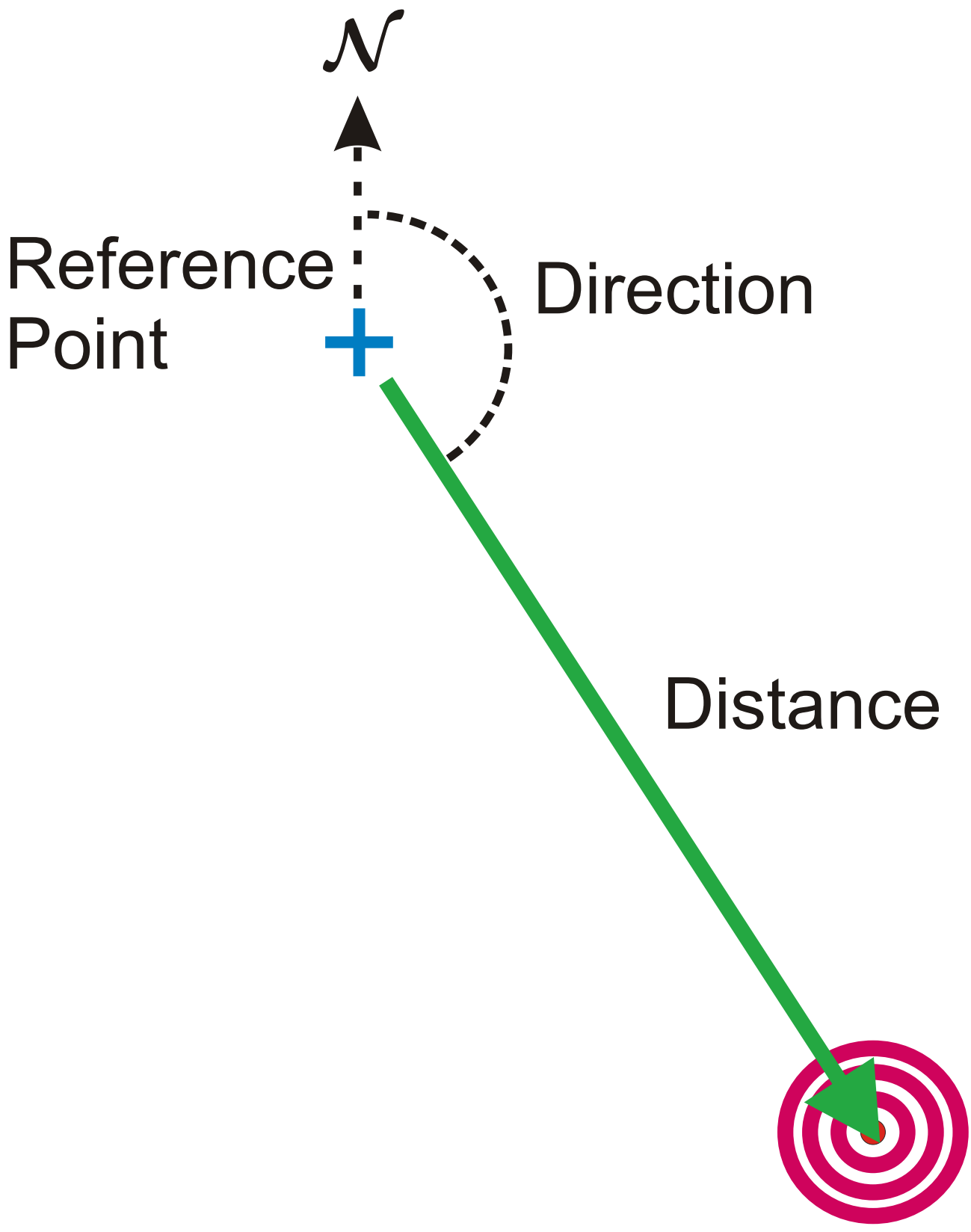
The next four figures demonstrate the techniques used to locate a point, which is denoted by the red target. The dashed arrows pointing up from the crosses denote north. The last two figures are self-explanatory.



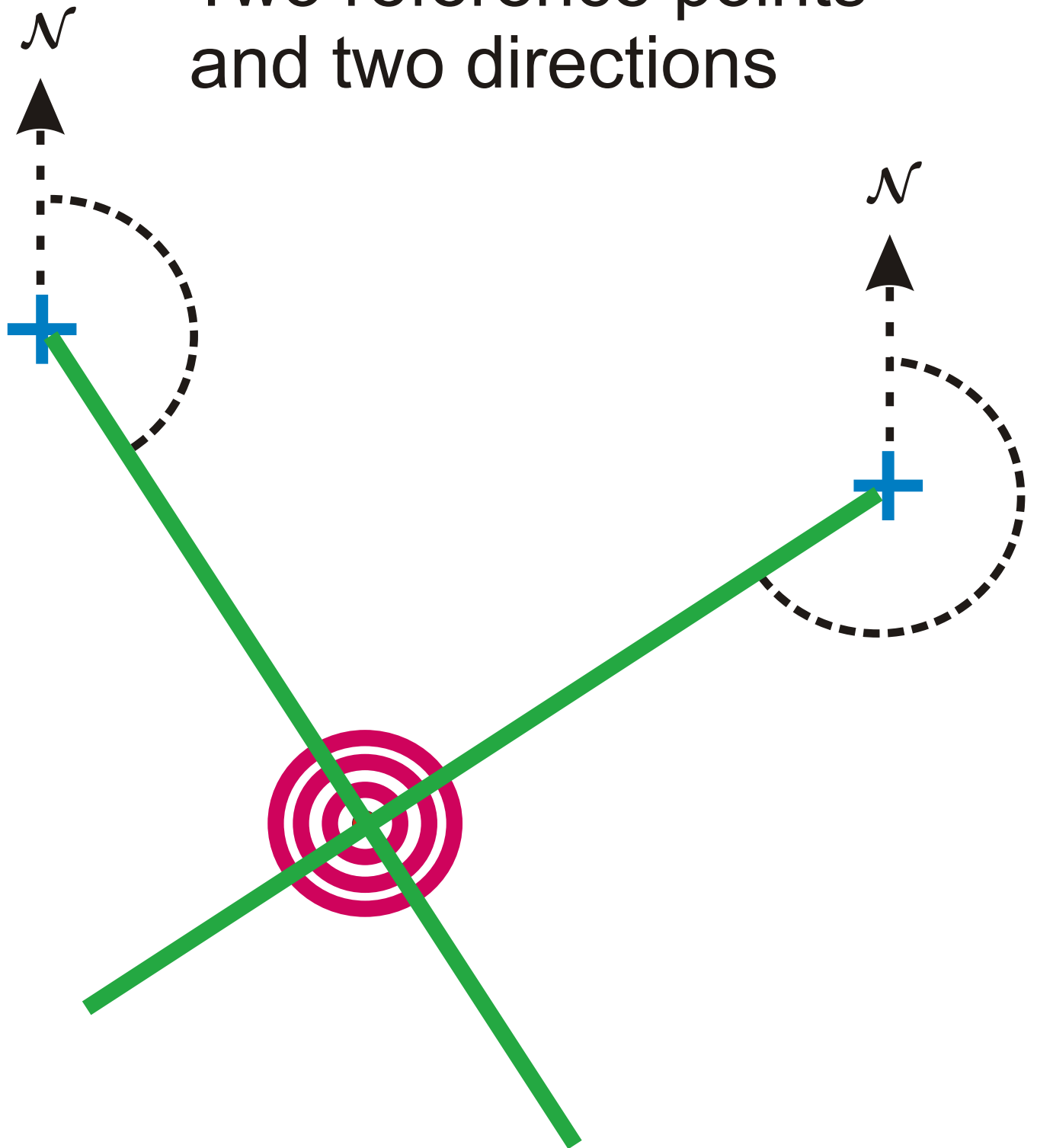
Valley

Ridge

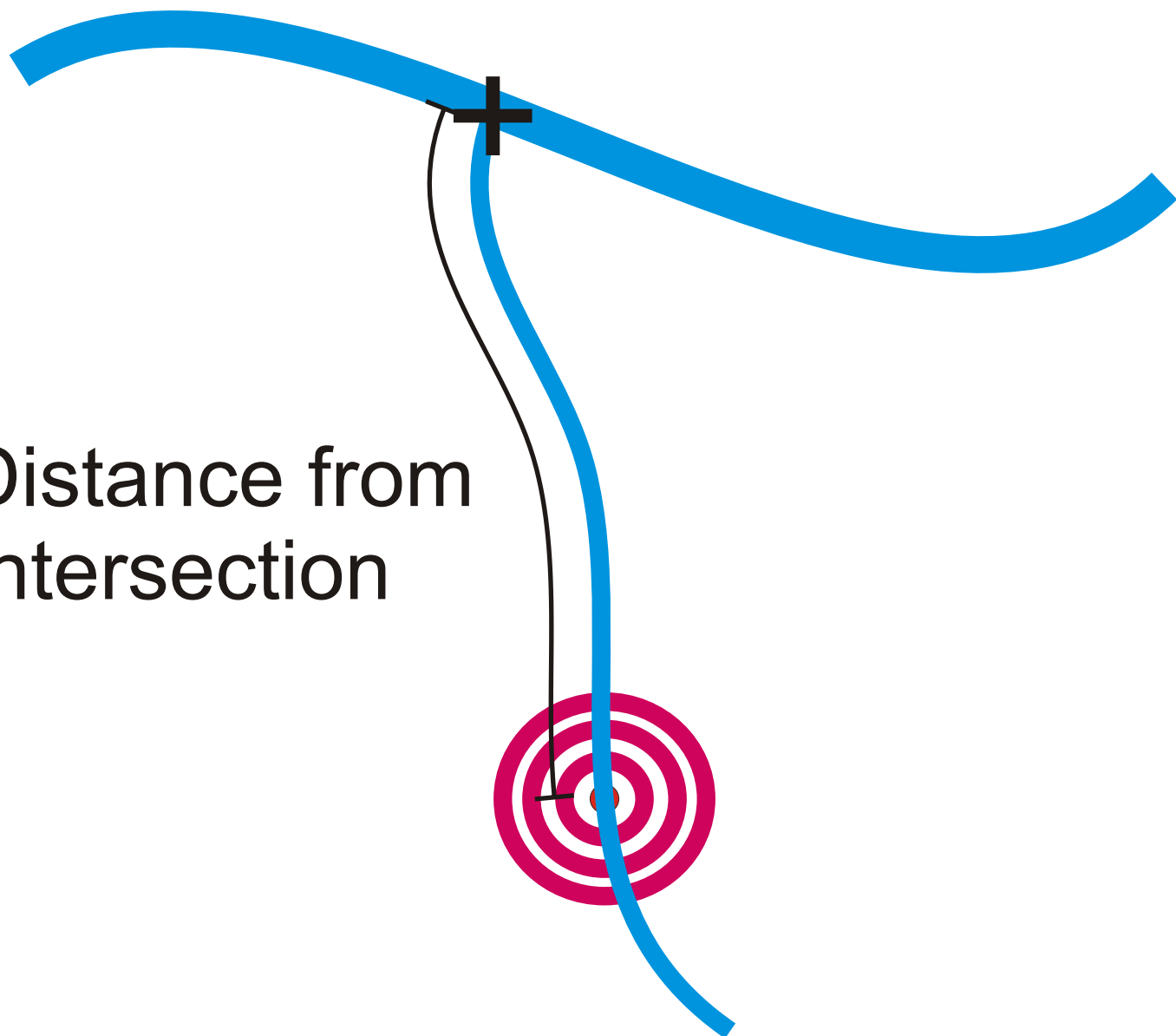




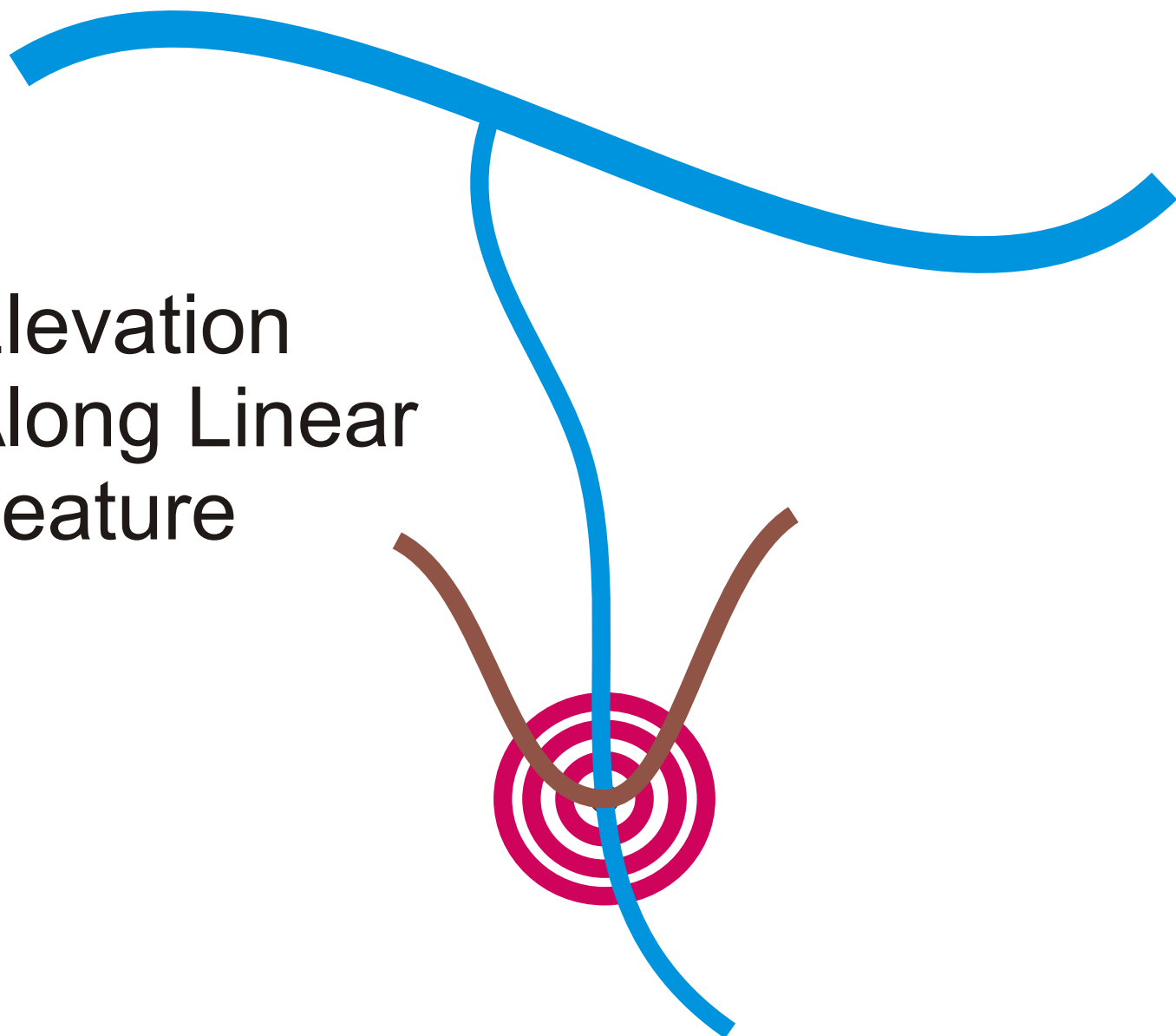
Two reference points and two directions

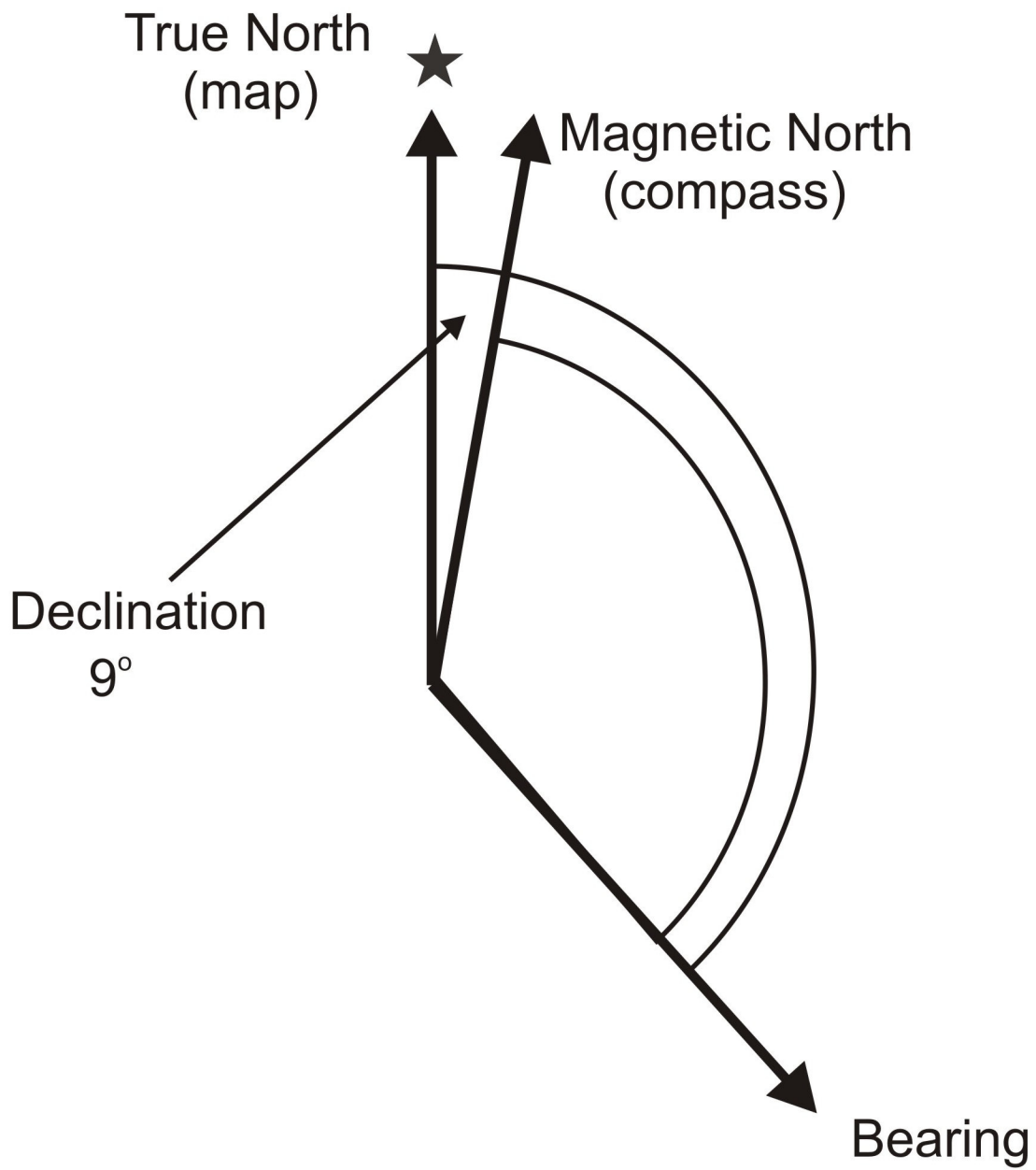


Distance from
Intersection



Elevation
Along Linear
Feature

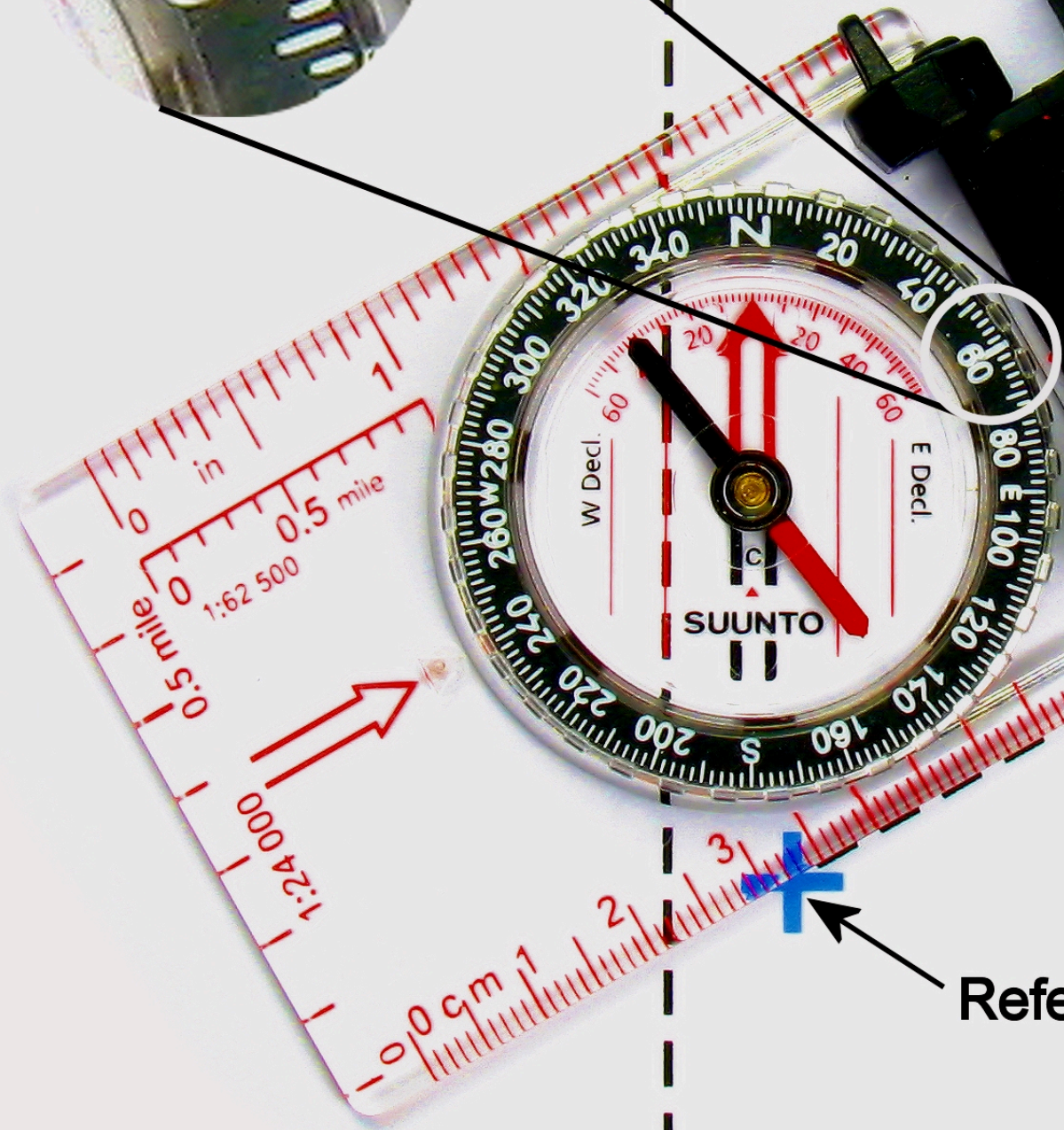
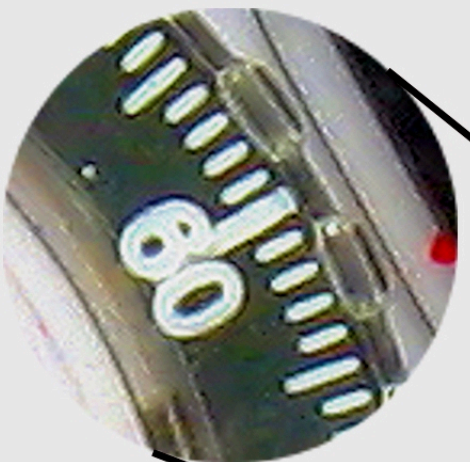




$$\text{True} = \text{Magnetic} + 9^\circ$$

(in the vicinity of Denver)

True North



Draw This Line

Reference Point