

Grid References

The UKTM Grid System (British National Grid)

The United Kingdom Transverse Mercator (UKTM) grid system is the grid that covers the UK, (Northern Ireland and the Channel Islands have their own grid systems). This is the grid that is used on Ordnance Survey maps.

Remember: Eastings before Northings

4 Figure Grid Reference

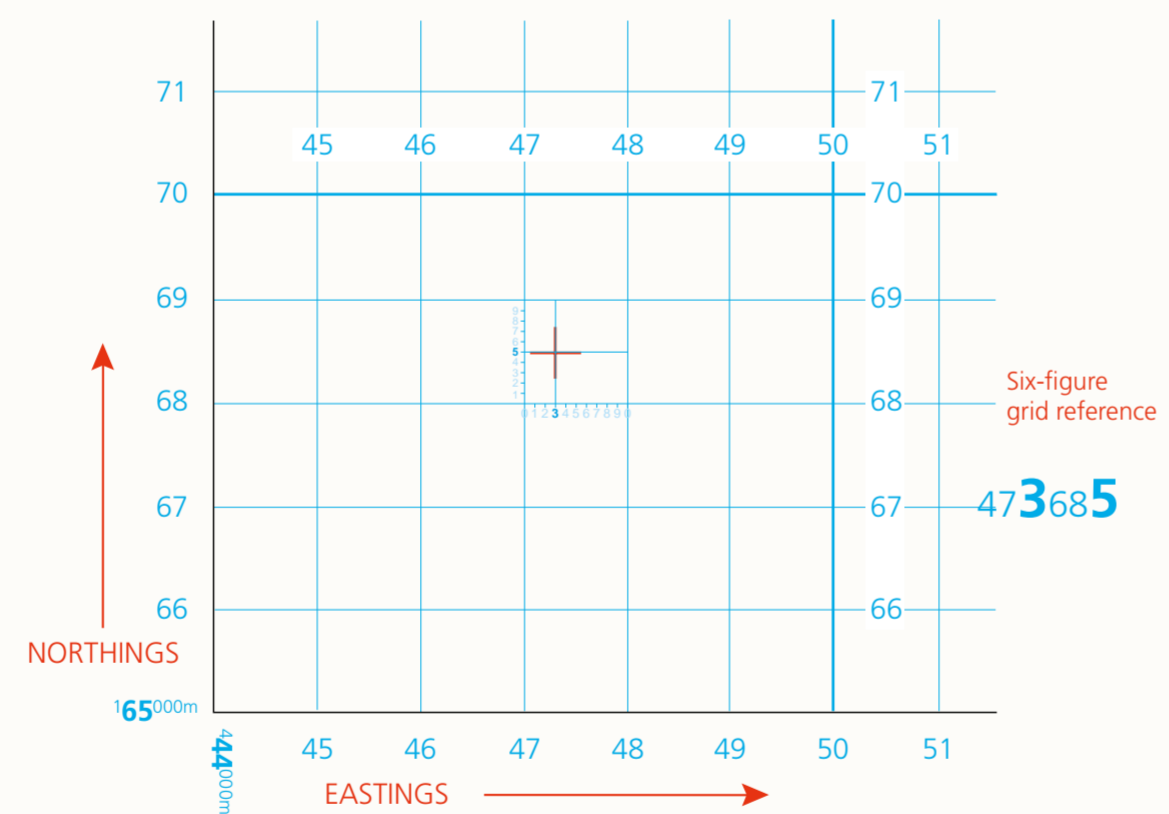
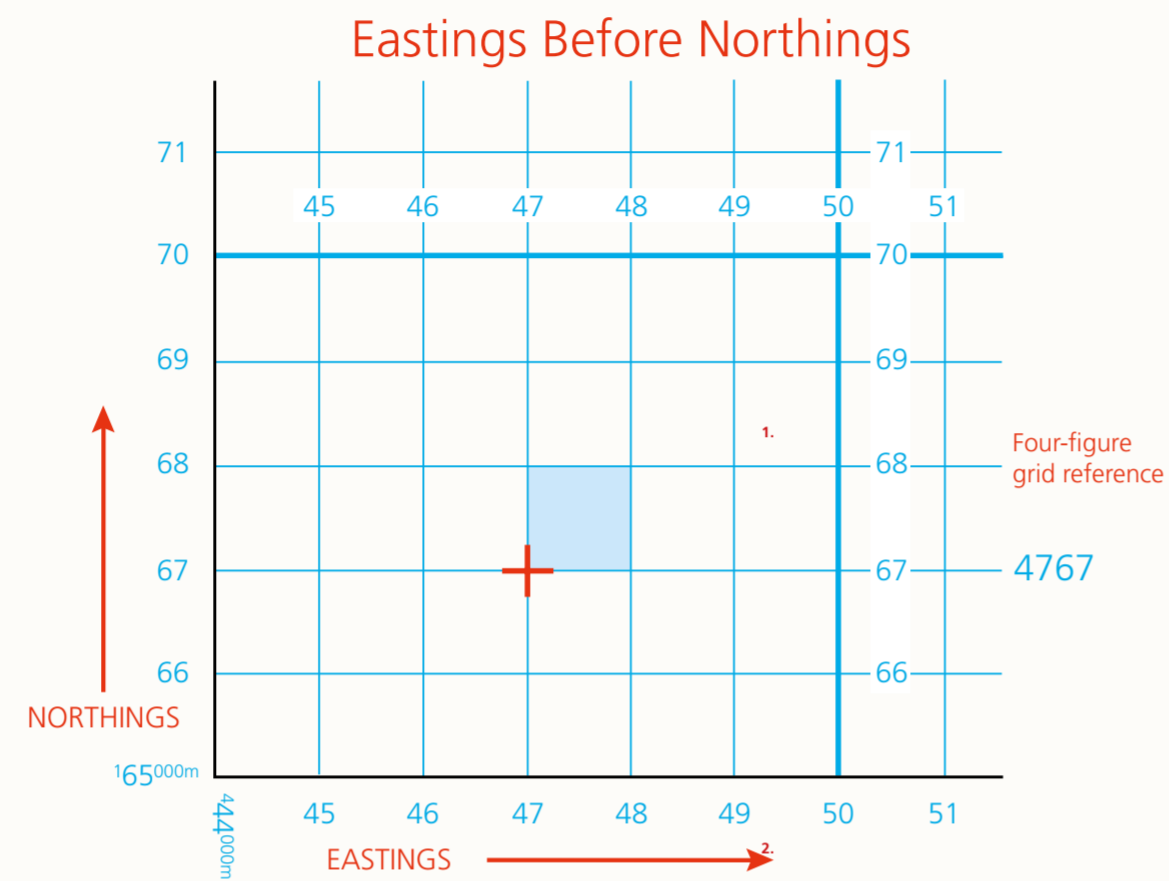
This is a combination of 2 Easting numbers going across the map followed by 2 Northing numbers going up the map. A 4 Fig GR refers to the South West corner of a 1Km x 1Km grid square and identifies any feature within the grid square.

Eg 47 67.

6 Figure Grid Reference

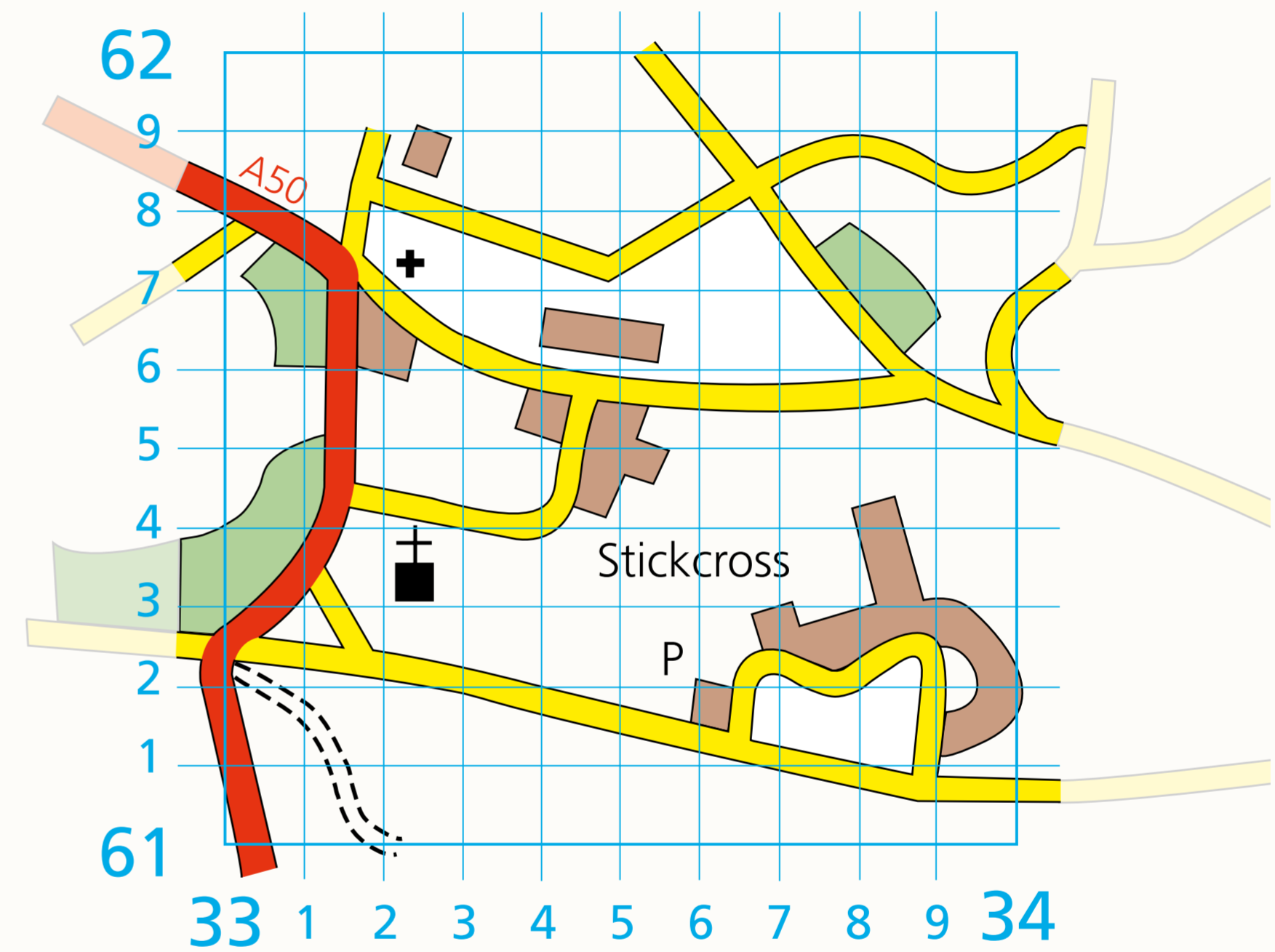
A 4 Fig GR is sufficient to identify a large or lone feature, eg a village or a bridge, but positions are usually required to an accuracy of 100m. To obtain a 6 Fig GR mentally subdivide the 1Km square into tenths both in Eastings and Northings to identify an area 100m x 100m.

Eg Road junction GR 331 612.



Using a Scale Line

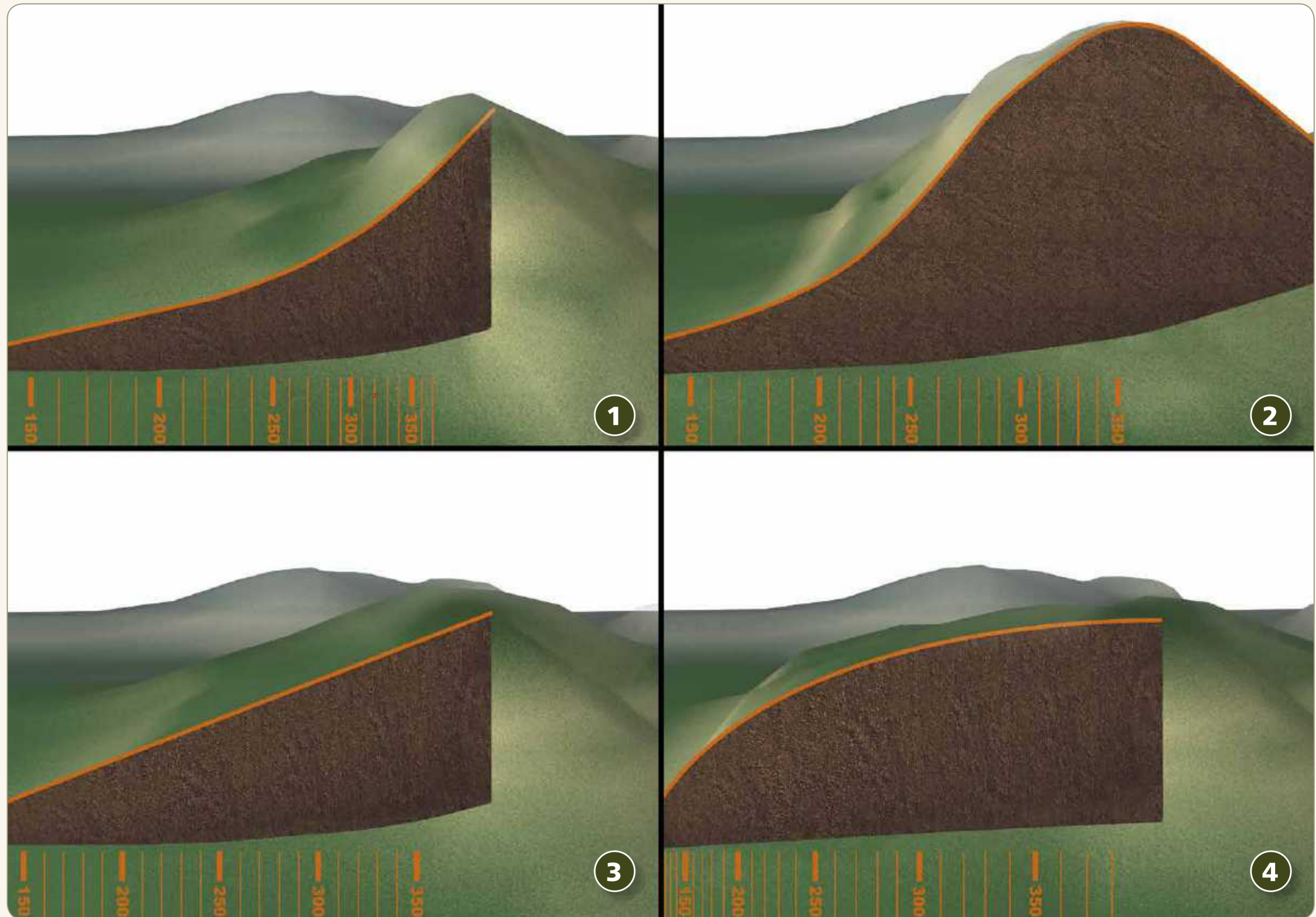
Reference



Types of Slope

1. Concave Slope
2. Combination Slope
3. Straight / Even Slope
4. Convex Slope

The closer together the contours the steeper the slope



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SKILL AT ARMS

MAP READING

OTHER



ARMY

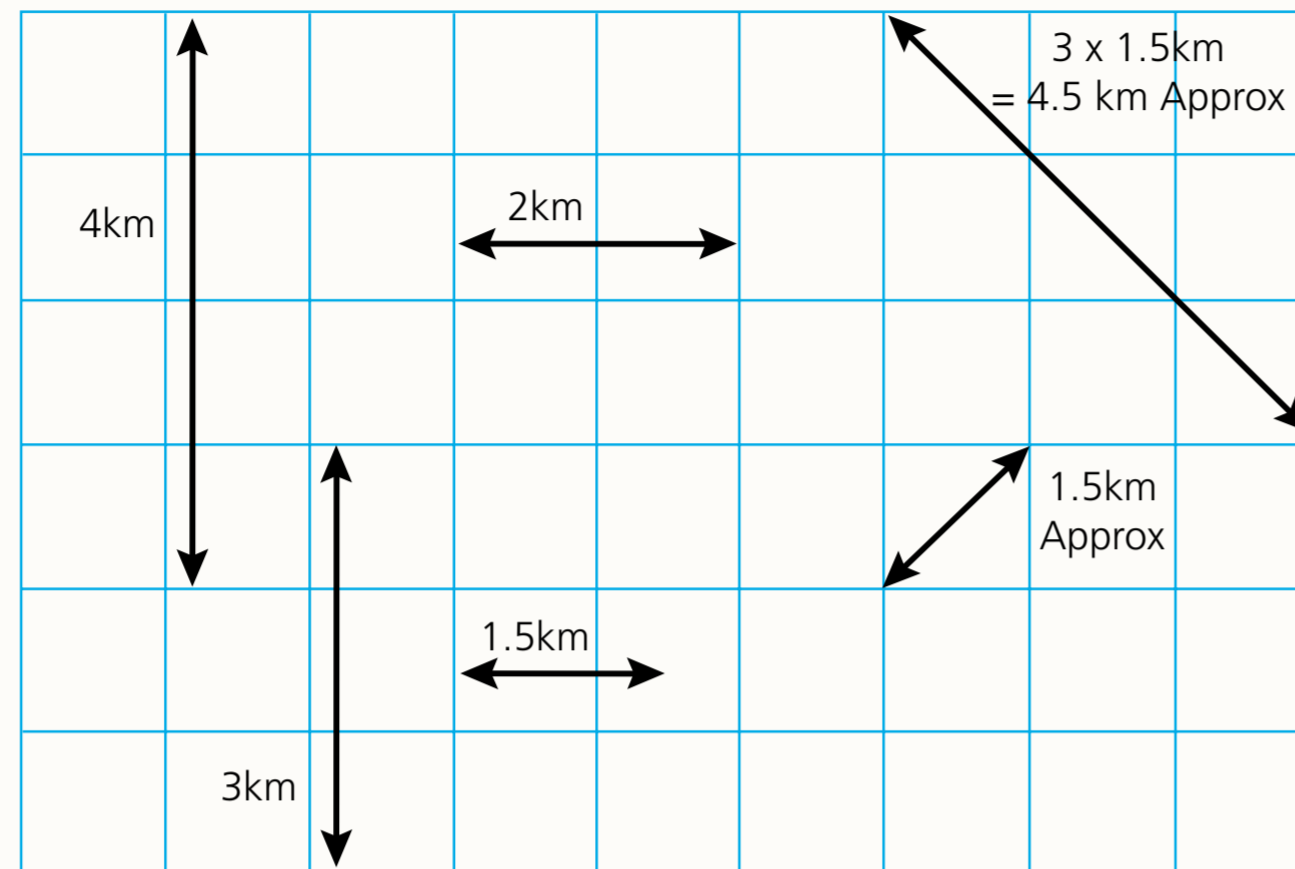
MAP READING

The Shape of the Ground

Measuring Distance

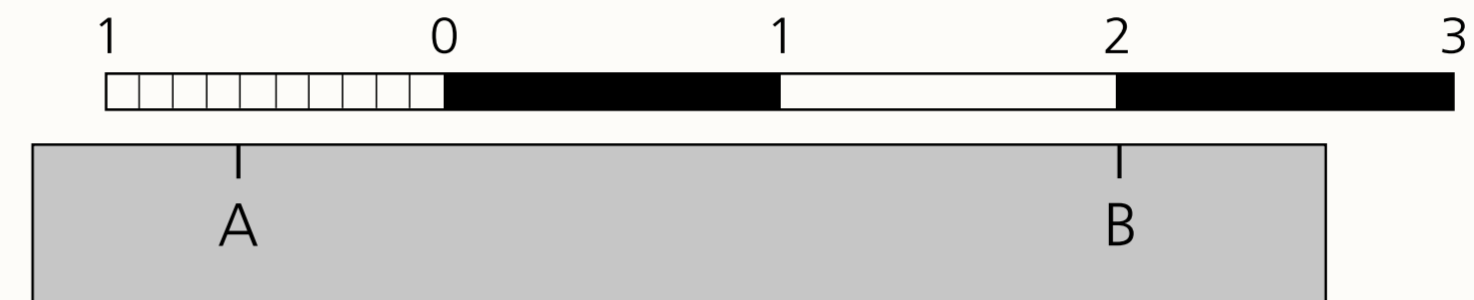
You can estimate by using Grid Squares

Use a piece of string or the edge of a piece of paper



Estimation of East - West, North - South and diagonal distances on a 1:50,000 scale map by use of grid lines.

Using a Scale Line



Move paper until the mark 'B' is against a whole division.

Read distance from B to A.

2 whole km + .6km = **2.6km.**

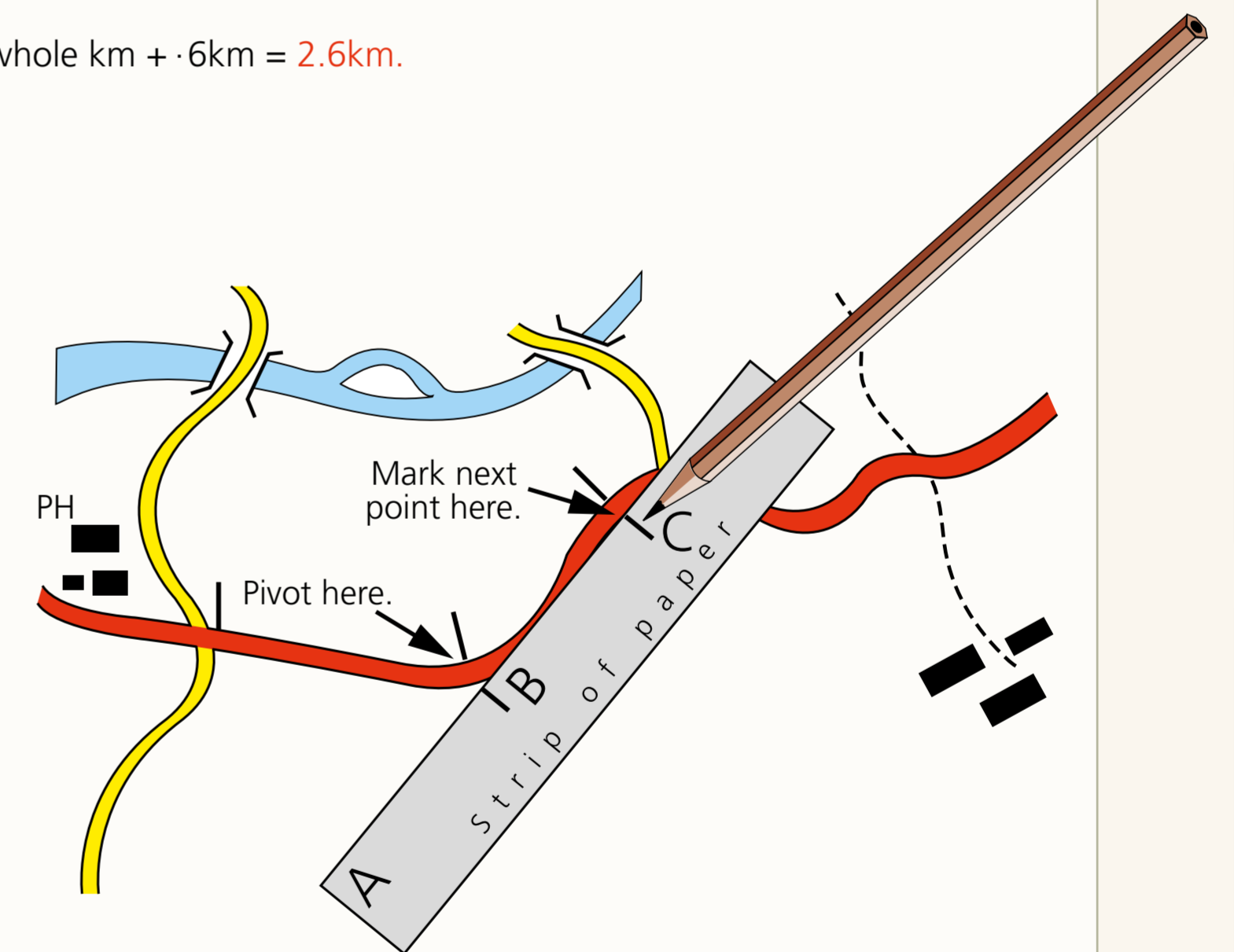
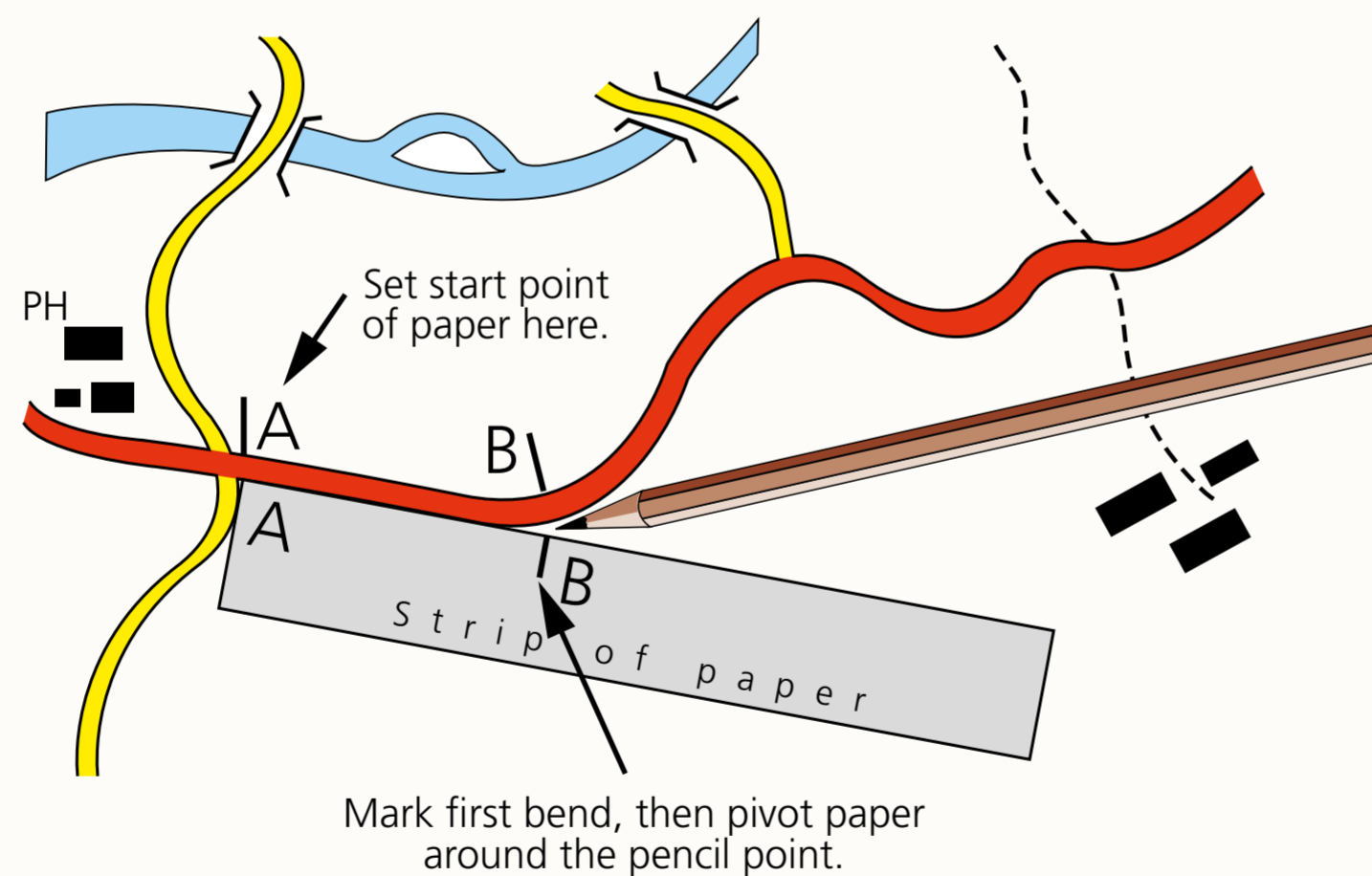
Measuring Indirect Distance

First, mark the start point.

Then mark the first bend.

Then pivot the paper around the pencil point to mark the next bend

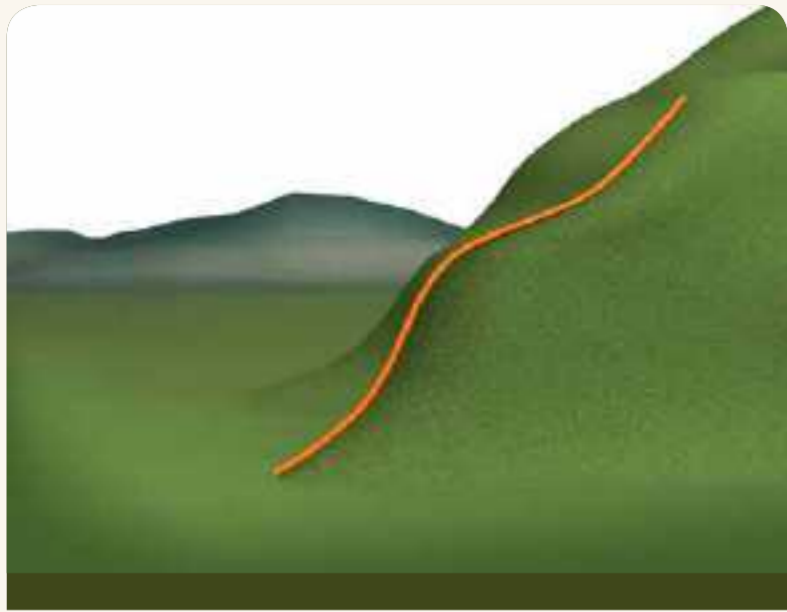
Repeat



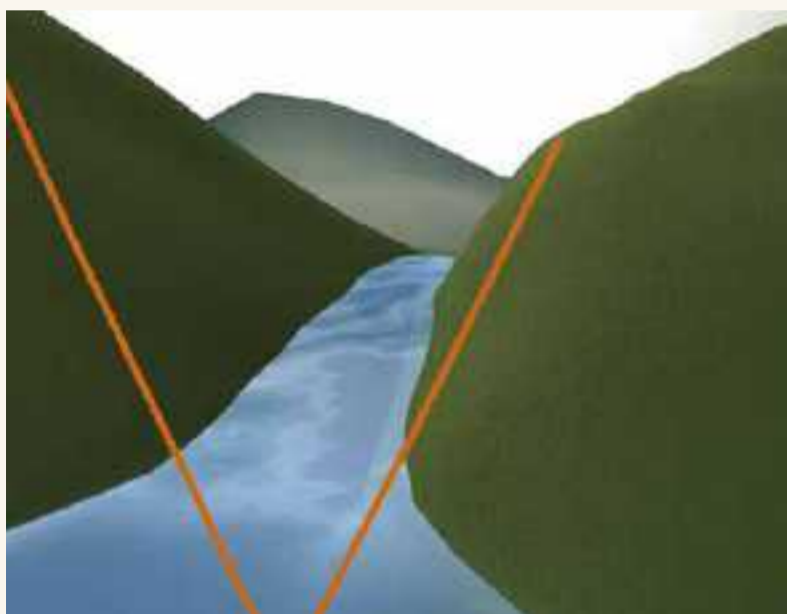
ARMY

MAP READING

Measuring Distance



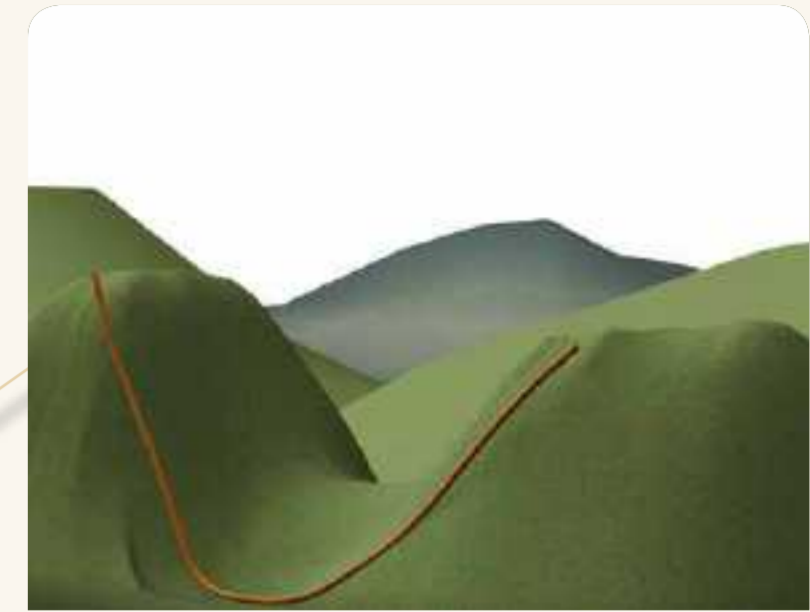
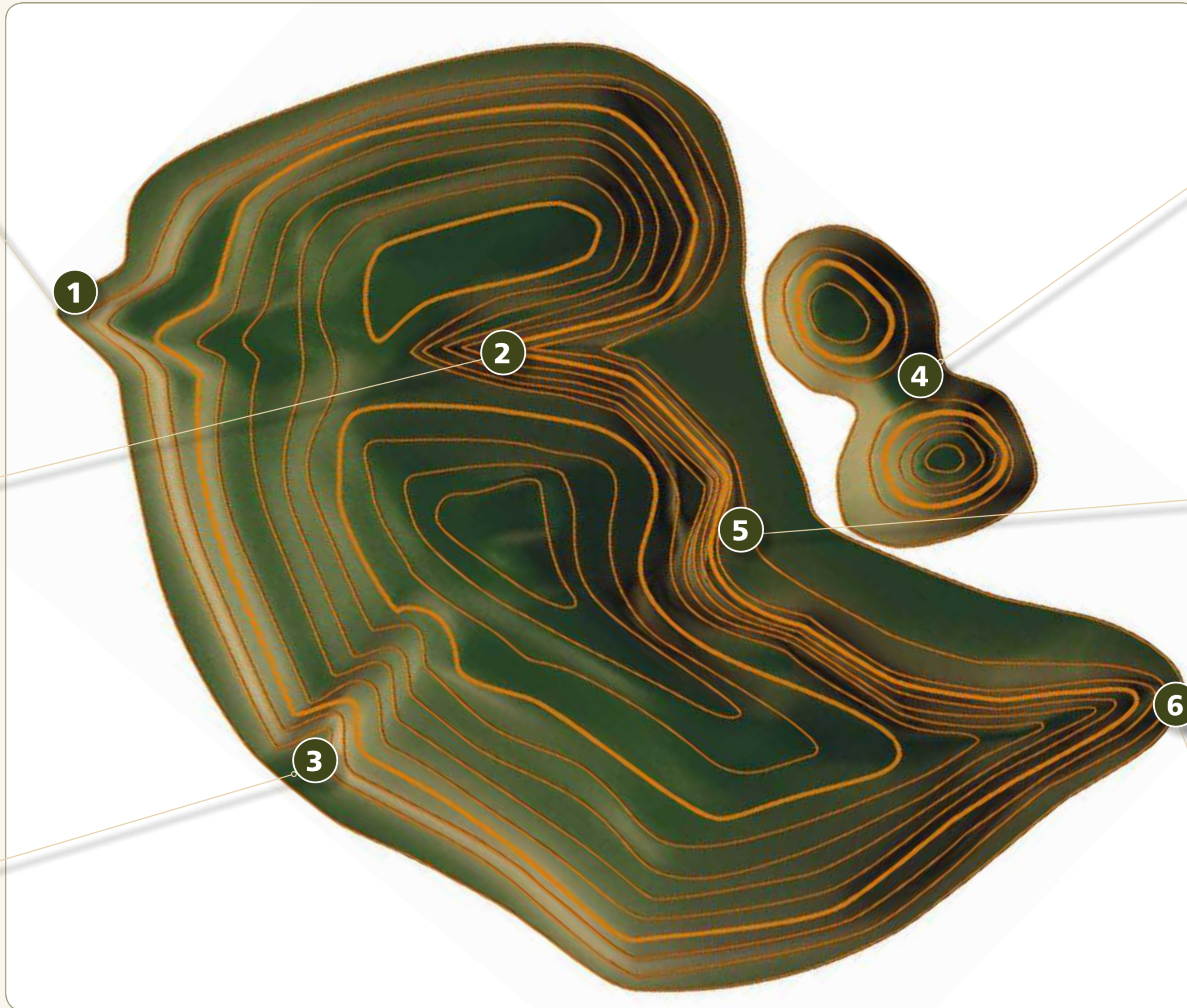
1. A Spur



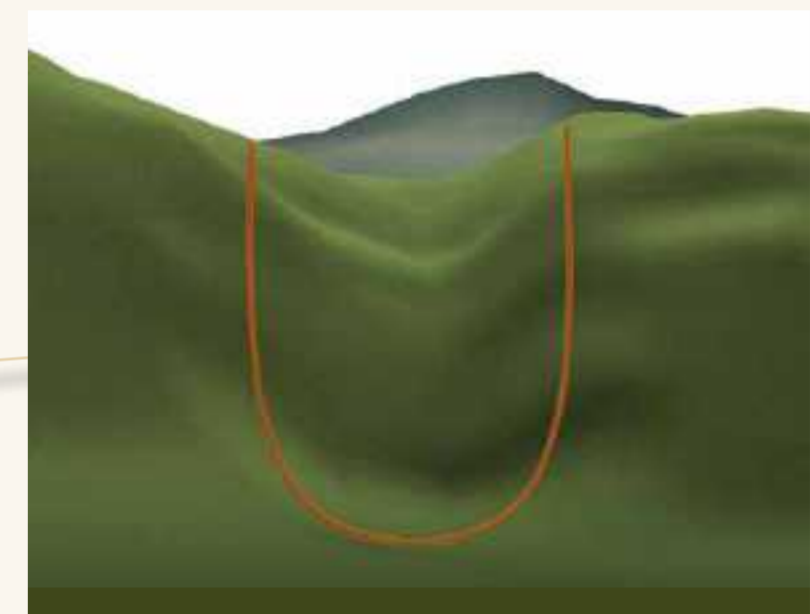
2. 'V' Shaped Valley



3. Re-Entrant



4. A Saddle



5. 'U' Shaped Valley



6. A Ridge



MAP READING

Types of Landforms (Features)

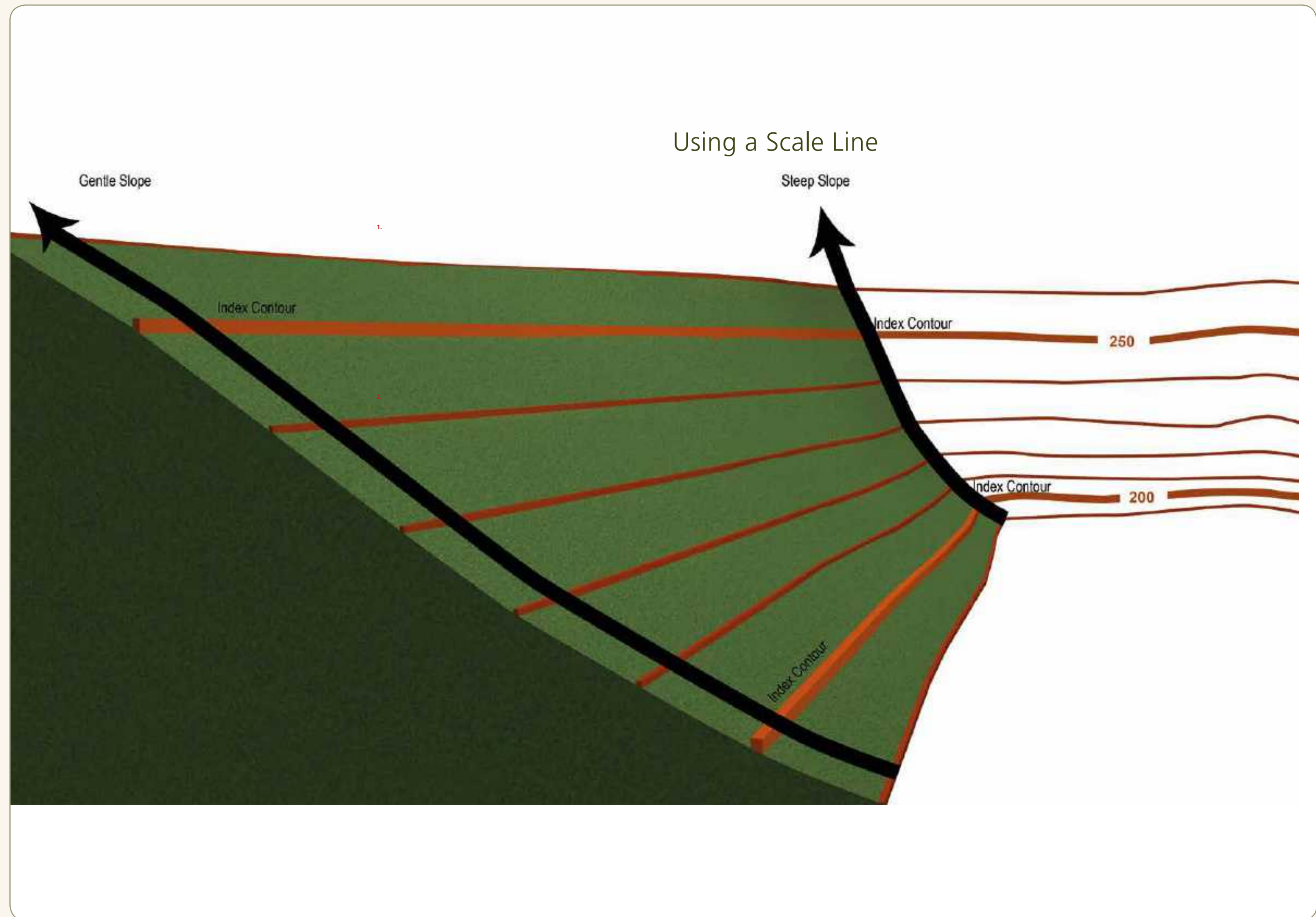
Contours

A Contour is an imaginary line that joins **Points of Equal Height** above mean sea level.

The closer contour lines are together the steeper the slope.

The further apart, the more gentle the slope.

Contours are spaced every **10** metres with an index contour in bold every **50** metres.



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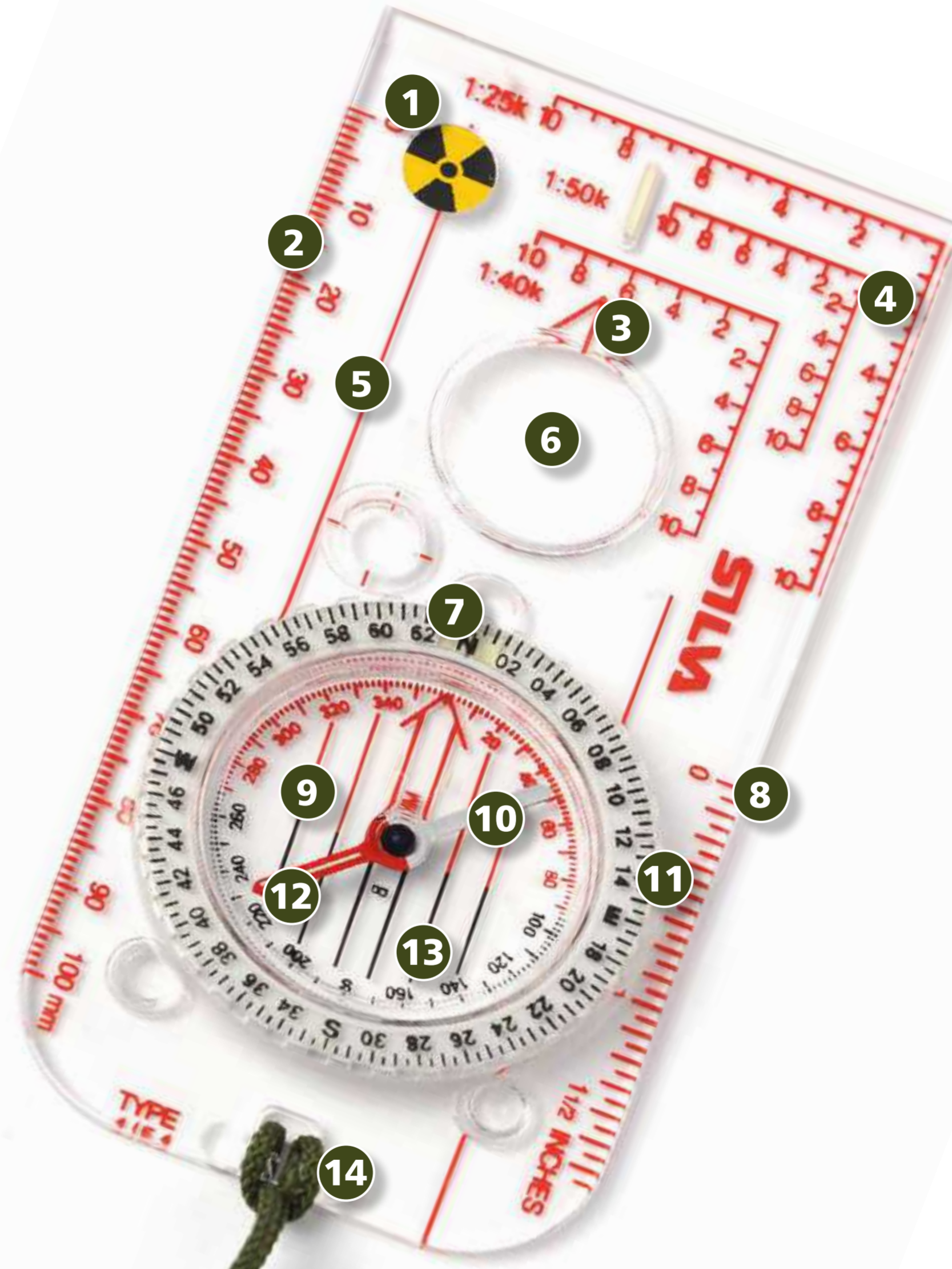


MAP READING

Contours

Silva Compass

1. Radiation Trefoil
2. Ruler (Metric)
3. Direction of Travel Pointer
4. Romer
5. Base Plate
6. Magnifying Glass
7. Bearing Line Index
8. Ruler (Imperial)
9. Compass Housing
10. Magnetic Needle
11. Rotating Bezel
12. North Pointer
13. Orienting Lines
14. Lanyard



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MAP READING

Lightweight Silva Compass