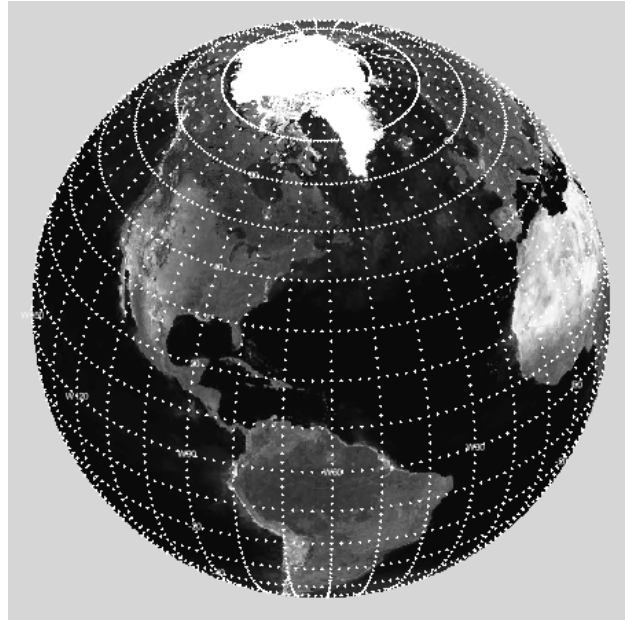# Basic Map Reading

Grid Coordinates
(4, 6 and 8 Digit)

Definition of a Map
(review)

A map is a graphic representation of a portion of the earth's surface drawn to scale, as seen from above; it uses colors, symbols and labels to represent features found on the ground.

Grid Lines

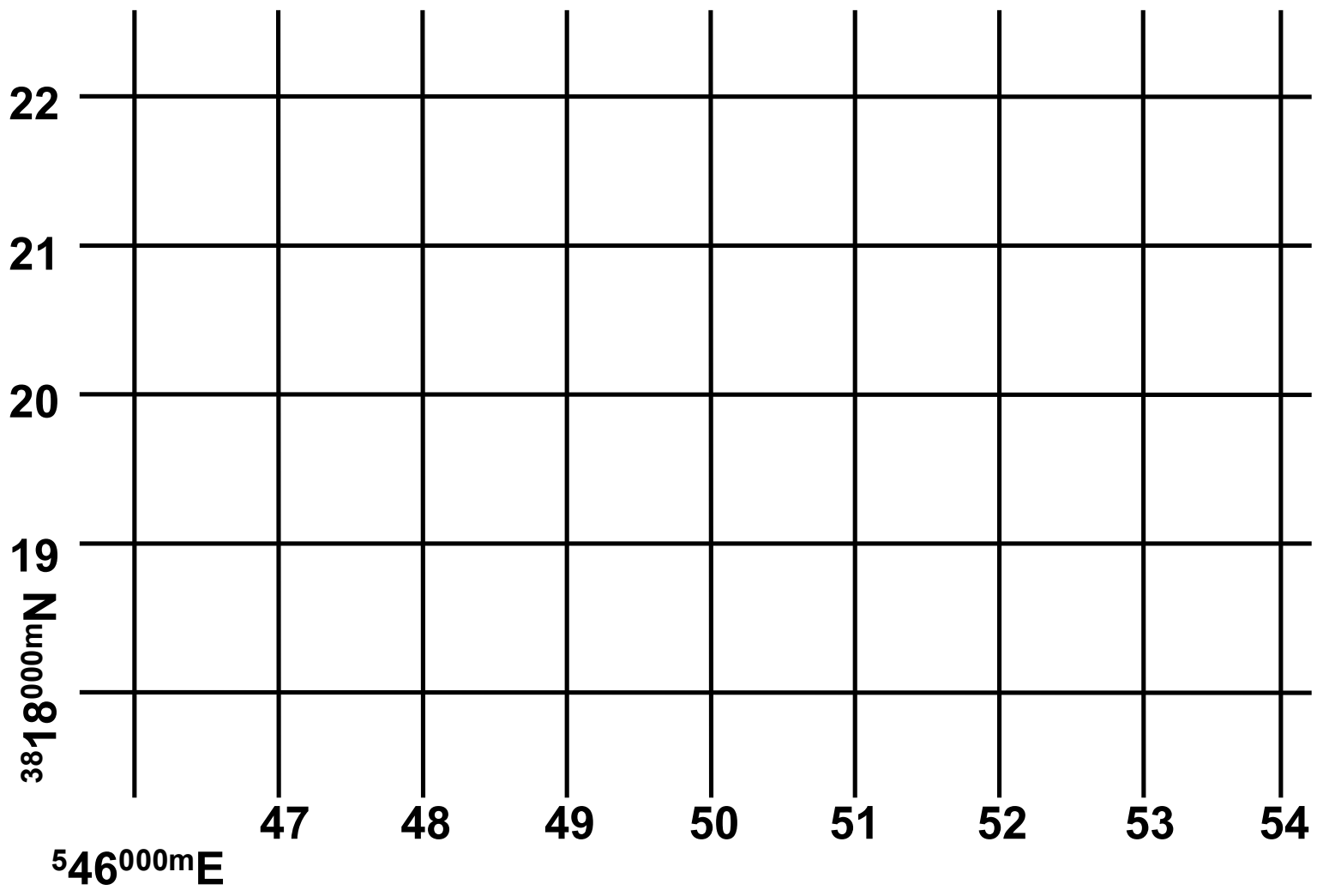A series of straight lines intersecting at right angles forming squares

Horizontal grid lines run grid west to grid east

Vertical grid lines run grid south to grid north

BASIC RULE
Read right on the vertical lines, then up on the horizontal grid lines
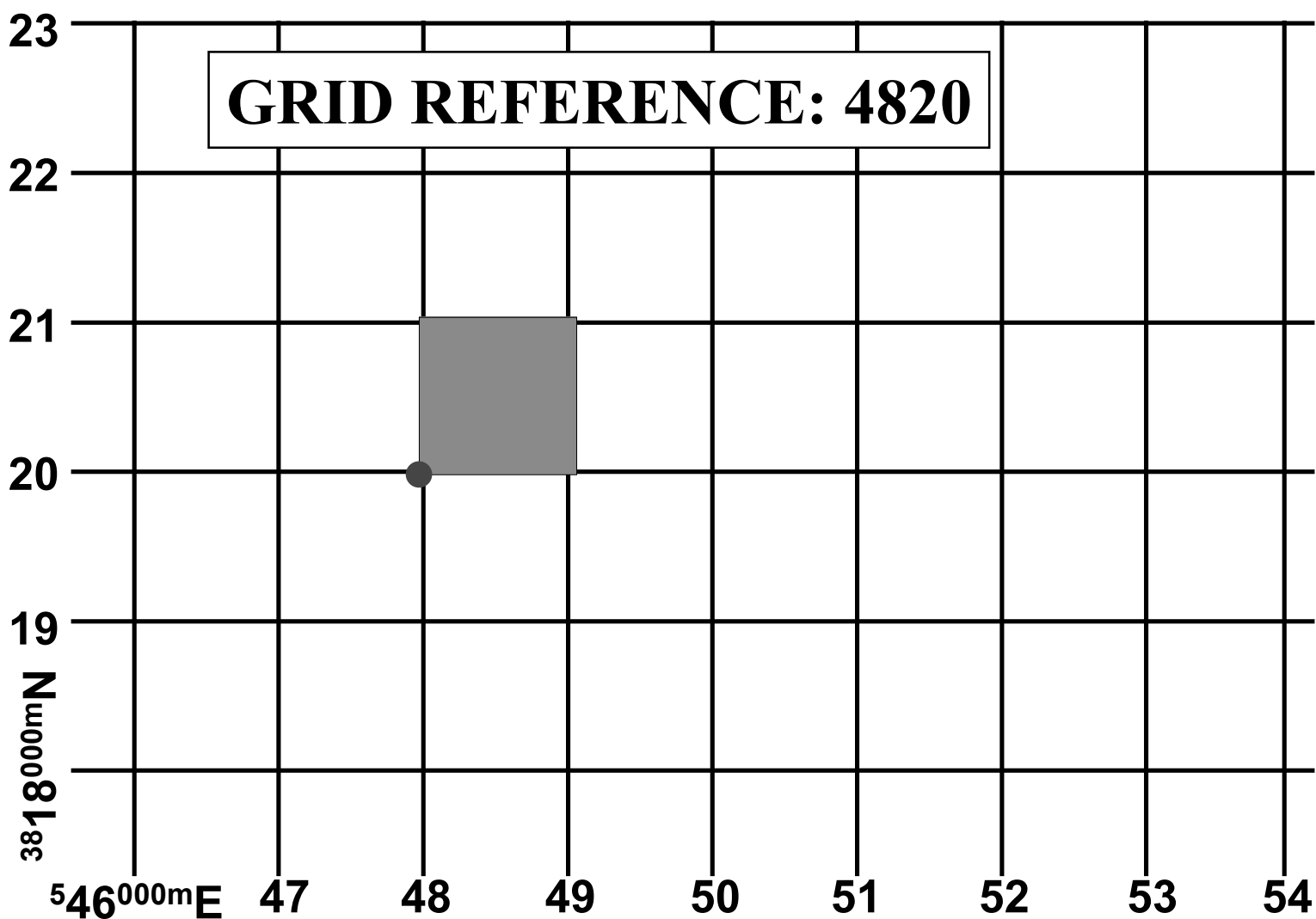
Grid Lines

Grid Coordinate

A grid square's coordinates are found by combining the values of the vertical and horizontal grid lines that intersect at the lower left hand corner of the grid.

A 4-digit grid coordinate locate a point to within 1000 square meters

A 6-digit grid coordinate locate a point to within 100 square meters

A 8-digit grid coordinate locate a point to within 10 square meters

Finding a 4-Digit Grid Coordinate

GRID REFERENCE: 4820
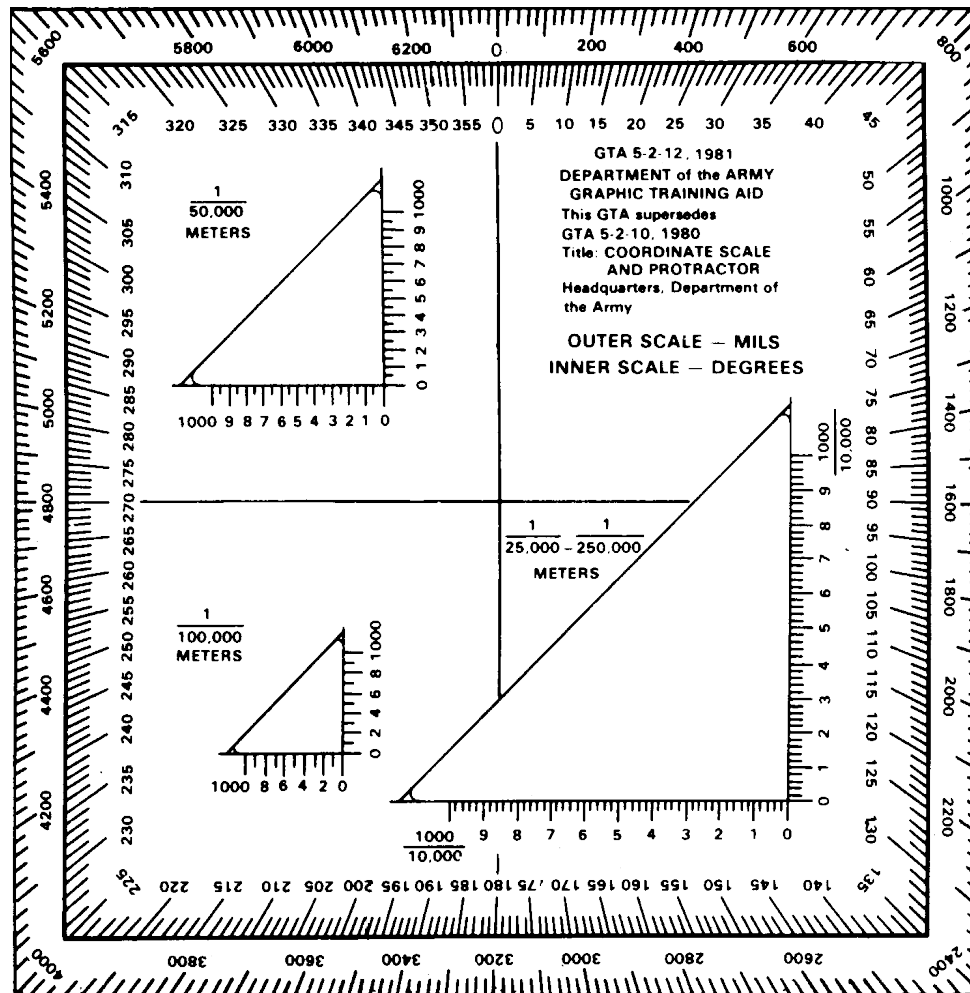
Grid Coordinate Scale

A grid coordinate scale divides the grid square more accurately and consistently than estimation

Coordinate scales:
- ° 1:25,000 / 1:250,000
- ° 1:50,000
- ° 1:100,000

A 1:25000 coordinate scales divides the 1000 square meter block into ten 100 meter divisions, the ten divisions are further divided into 20 meter blocks

Grid Coordinate Scale

Finding the Grid Coordinate of a Point

►First determine the grid square the point is in. This gives 4 digits: **12**xx**56**xx.

►Next, using correct scale on protractor, align the bottom right corner of the protractor scale to the bottom right corner of the grid square.

  ▪Slide the protractor to the left until the right edge of the scale intersects the point.

  ▪Read off the horizontal and vertical position:

    ►12**34**56**78**

23

Grid: 49551885

22

Gives second two
longitude (horizontal)
coordinates: 85

21

Gives second two
latitude (vertical)
coordinates: 55

20

19

18
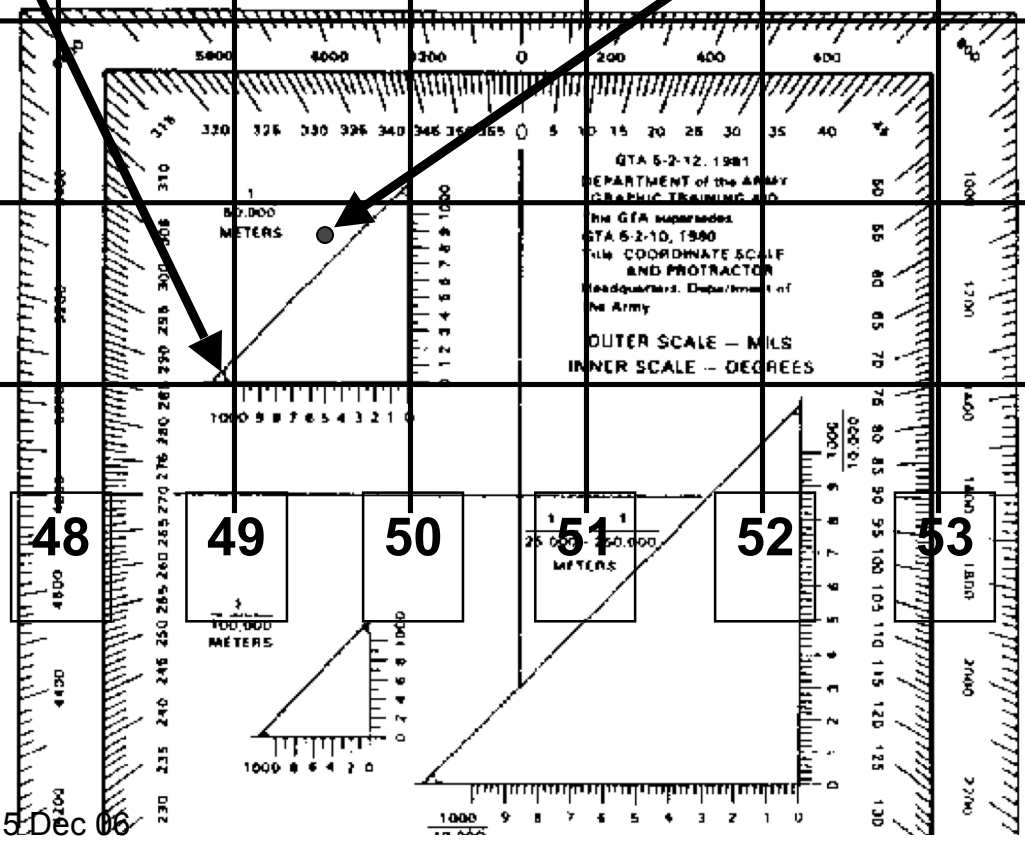
46 **47** **48** **49** **50** **51** **52** **53** **54**

Plotting a Grid Coordinate

Grid Coordinate 12345678

- Divide into horizontal and vertical measurements 1234/5678
- Next locate primary coordinates that give grid square:

  ° 12345678: 12 and 56 are primary coordinates that provide the grid square
  ° The 34 and 78 are determined by using the tick marks on the protractor