**MEASUREMENT OF MAP DISTANCES**

The distance on a map is the interval between two points on a map. It can either be straight or curved.

A. MEASUREMENT OF STRAIGHT DISTANCES

1. Locate the places involved on the map.
2. Use a long ruler to measure the distance between the two points or places.
3. Relate the distance measured on the map to the scale given and get the ground distance.

B. MEASUREMENT OF CURVE DISTANCES

This can be done through three methods:

1. The use of a pair of a divider.
2. The use of a piece of thread.
3. The use of a straight edge of a paper.

Among the three methods, the easiest and the best is the use of thread.

Use of a Piece of the Thread:

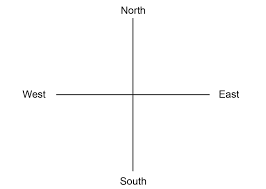
Stretch a piece of white thread along the route or curve that is to be measured gradually, carefully and accurately. Carefully follow the curve and do not allow the thread to move out of the curve. Mark the end of the distance on the thread with a biro or a pencil and transfer it to the linear scale or calculate the distance in the statement or R.F Scale.

C. MEASUREMENT OF DIRECTION

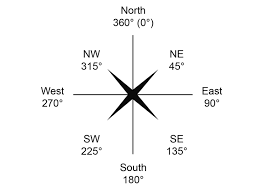
The direction of one place or object from another is expressed through compass points or cardinal points. There are four, eight and sixteen cardinal points respectively. The four cardinal points are: North, South, East and West. But for better accuracy in the measurement of direction, eight cardinal points are used. These include North, North‑East, North‑West, South, South‑East, South‑West, East and West.

Procedures for Measuring Direction

1. Locate the two places involved on the map.
2. Place your four cardinal points at the location or places given.
3. Use your ruler to join the place you wish to find its direction from the location or reference point.
4. The cardinal point on that line or near it is the direction.



The four cardinal points

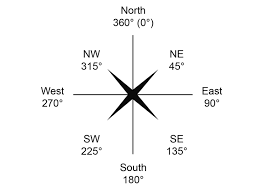


The eight cardinal points

D. BEARING

The location of one place from another is described as its bearing.

Bearing is expressed in degrees using a protractor, measured from North in a clockwise direction.



Procedures for Measuring Bearing

1. Locate the two places involved on the map.
2. Place your four cardinal points at the reference point because you are looking for the bearing of the other town.
3. Use your ruler to join the two places.
4. Place your protractor on the side of the line and the degrees which falls on that line represents the bearing.

It is proper to distinguish the three types of Norths in relation to bearing which aids the orientation of a place.

1. **True North: This north** is derived from a line (meridian) of longitude is the direction of the North Pole (N)

**2. Grid North: This north** is the direction which is shown by North – South (NS) grid lines on the map

3. **Magnetic North this north** is obtained through the use of magnetic compass

**E. VARIATION OR DECLINATION**

The angle between the magnetic North and the true North is called **magnetic variation** or **declination**

GENERAL EVALUATION

1. What is a distance?
2. How do we measure distance on the map?
3. Differentiate between location and bearing.
4. Explain the method of measuring bearing.
5. What is bearing?
6. How can you measure a curved distance?
7. Draw the four cardinal points.

READING ASSIGNMENT

Read on the measurement of direction and bearing in Essential Geography Pgs. 163-164