

Sheet # 2

Units (Distance, Area, Angles)

Note: You are required to submit your answers in a report with hand writing.

1- Convert the following angles:

- a) 85.3265° to GRD
- b) 39.5568^0 to RAD
- c) 301.3288^g to DEG
- d) 142^g to RAD
- e) 3.22 Rad to DEG
- f) 1.65 Rad to GRD

(Note: GER = Degree, GRD = Grad, and RAD = Radian)

2- A football playground has a length of 76 yards. Find its length in meters.

3- If the area of a farm is determined as 125050 square meter. Compute its area in Fadden.

4- The distance between two cities on a map is measured is 10 cm. If this distance was drawn with scale 1: 1000000. Calculate the true distance.

- 5- A rectangular piece of land of 875 m². If this land drawn with scale 1: 100. If its width appears as 25 cm on that map, calculate its true length.
- 6- A picture was taken for a man where the scale of the picture was 1:20. What is the true tall of the man if his length on that picture was measured as 8.6 cm
- 7- The distance between two cities is 36km and the distance between them on a map is 1.6 cm. Find the scale of the map.

Calculating Distance between Two Sets of Coordinates

If

Point 1: Northing 1=" N1" and Easting 1="E1"

Point 2: Northing 2="N2" and Easting 2="E2"

Distance between Point 1 and point 2 =

$$\text{Sqrt}((N1-N2)^2+(E1-E2)^2)/1000=\text{Distance in Kilometers}$$

Remember: regarding altitudes and longitudes:

LATITUDE (the "Y-Coordinate")

LONGITUDE (the "X-Coordinate")

Good Luck