



Question 1

Transform the following lengths to the meters:-
2843.65 yard, 65.56", 23.56 mile, 54.76'

Question 2

Transform the following lengths to the feet unit:-
9876.75 mm, 85.09 m, 9667.45 cm, 45.65 dcm

Question 3

Transform the following angles to the sixagesimal system:-
1.345 rad, 3.109 rad.

Question 4

Transform the following areas to square meters & hectares:-
23 f 03 k 4.5s, 34 f 09 k 6.8 s

Question 5

Transform the following areas to the agricultural system:-
123.34 hectare, 1.45 square km, 3456.87 square meters.

Question 6

Calculate the area of the given triangle in the following cases:

1-a=150m, b=200m, c=300m (Use two different methods)

2-a=100m, b=200m, C=30°

3-A=70°, b=20m, C=50°



- 1- A football yard (Rectangular shape with half circle at both ends) its dimension are 220.5m and 42.40m. Draw this yard on a 20x15cm paper. Then find out the cost required to cover this yard with grass which costs 250 SR per square meter.
- 2- A line of 36.95m, find out the suitable scale to draw this line in 15.0 cm.
- 3- In a 1:2000 map a line appears to be 18.30cms. Find out its true length.
- 4- A true distance between two stations is 104.65 m, find out this distance on a 1:500 map.
- 5- The area of a site appears to be 150mm² on a 1:2500 map. Find out its true area.
- 6- Design and draw the following scales. Then show on your scale the opposite distances.
 - 1 : 100 to read 0.25m (6.75, 4.5, 7.25m),
 - 1 : 500 2.50m (7.5, 10.0, 17.5m),
 - 1 : 1000 0.50m (22.5, 40.5, 61.5m),
 - 1 : 2000 1.0m (43.0, 66.0, 82.0m),
 - 1 : 5000 5.0m (65.0, 115.0, 275.0m),
 - 1 : 250,000 0.50 km (7.5, 20.0, 37.5km),
 - 1 : 500,000 2.50 km (15.0, 37.5, 65.0km),
 - 1 : 1,000,000 1.0 km (24.0, 46.0, 88.0 km).

***Textbook(s)**

1. James M. Anderson & Edward M. Michael, 1985, "Introduction to Surveying " International student edition. Published by M Graw-Hill Book Company.
2. William Irvin, 1980, "Surveying for Construction", Published by M Graw-Hill Book Company UK.
3. Price W. F., 1978, "Surveying for Engineers", Published by The Mac-Millan Press Ltd. London

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