



Assignment #5

Dear CVG 2171 students,

Please solve the problems below and return them to you TA at the next tutorial session.

- 1- Compute the area between a lake and a straight line AG, from which offsets are taken at irregular intervals as follows (all in meters)

Offset Point	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>
Stationing	0.000	20.000	78.940	148.963	163.654	203.691	250.454
Offset	2.15	3.51	4.04	6.57	5.87	4.64	1.65

- 2- The (X, Y) coordinates (in feet) for a closed-polygon traverse ABCDEFA follow:
 A (1000.00, 1000.00), B (1645.49, 1114.85), C (1675.95, 1696.05), D (1178.99, 1664.04), E (1162.62, 1337.78) and F (996.53, 1305.30). Calculate the area of the traverse by the method of coordinates.
- 3- Compute by DMDs the area in hectares within a closed-polygon traverse ABCDEFA by placing the X and Y axes through the most southerly and most westerly stations, respectively. Departures and latitudes (in meters) follow:

AB: E dep. 30, N lat. = 40;

BC: E dep. = 70, N lat. = 10;

CD: E dep. = 30, S lat = 50;

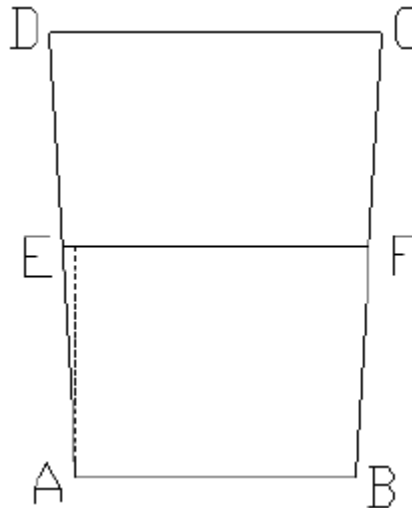
DE: W dep = 60, S lat. = 40;

EF: W dep = 90, S lat = 30;

FA: E dep. = 20, N lat = 70.



- 4- Lot ABCD between two parallel street lines is 350.00 ft deep and has a 220.00 ft frontage (AB) on one street and a 260.00 ft frontage (CD) on the other. Interior angles at A and B are equal, as are those at C and D. What distances AE and BF should be laid off by a surveyor to divide the lot into two equal areas by means of a line EF parallel to AB?



Good luck,