



**Assignment #7**

Dear CVG 2171 students,

Please solve the problems below and submit them to your TA at the next tutorial session.

- 1- Compute L, T, E, M, LC, R, and stations of the PC and PT for the circular curves in below. Use the chord definition for the railroad curve and the arc definition for the highway curves.

*Railroad curve with  $D_c = 4^\circ 00'$ ,  $I = 24^\circ 00'$ , and PI station =  $36 + 45.00$  ft.*

- 2- Tabulate R or D, T, L, E, M, PC, PT, deflection angles, and incremental chords to lay out the circular curves at full stations (100 ft or 30 m) in the highway curve with  $L = 270$  m,  $R = 600$  m, and PI station =  $4 + 350.000$  m.
- 3- Tabulate all data required to lay out by deflection angles and incremental chords, at the indicated stationing, for the circular curves of a highway curve R will be rounded off to the nearest larger multiple of 10 m. Field measurements show that T should be approximately 85 m to avoid an overpass. The PI =  $6 + 356.400$  m and  $I = 13^\circ 20'$  with stationing at 30 m.
- 4- What sight distance is available, if there is an obstruction on a radial line through the PI inside the curves in Problem 2 (above), obstacle 10 m from curve.

Good luck,