



Dear students,

Please solve the following problems for Assignment #8 for your next DGD.

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

*Railroad curve with  $D_c = 4^\circ00'$ ,  $I = 24^\circ00'$ , 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 problem below:

*Highway curve with  $D_a = 3^\circ30'$ ,  $I = 15^\circ30'$ , and PI station = 36 + 44.50 ft.*

- 3- Tabulate all data required to lay out by deflection angles and incremental chords, at the indicated stationing, for the circular curve for 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  $I = 13^\circ20'$  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 for Problem #2, obstacle 15 ft from curve?

Good luck,