



**Assignment #8**

Dear CVG 2171 students,

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

- 1- Tabulate station elevations for an equal-tangent parabolic curve for the data given.

Check by second differences.

*A 180-m curve,  $g_1 = +3.00\%$ ,  $g_2 = -2.00\%$ , VPI station = 2 + 175, VPI elevation = 686.543 m, stakeout at 30-m increments.*

- 2- Field conditions require a highway curve to pass through a fixed point. Compute a suitable equal-tangent vertical curve and full-station elevations.

*Grades of  $g_1 = +5.00\%$  and  $g_2 = +1.50\%$  VPI station 6+300 and elevation 205.920 m. Fixed elevation 205.610 m at station 6+400.*

*(Use 100-m stationing)*

- 3- What are the station and elevation of the high point of the curve of Problem #1?

Good luck,