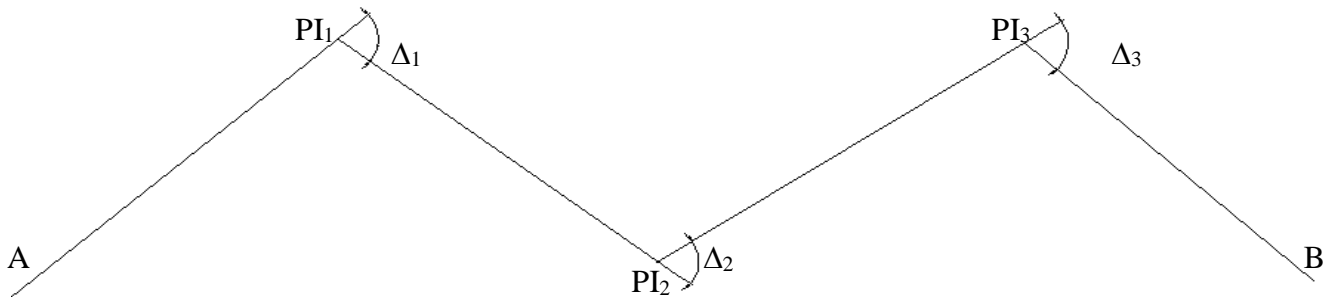


CE 353 PRINCIPLES OF TRANSPORTATION AND TRAFFIC ENGINEERING

RECITATION 2

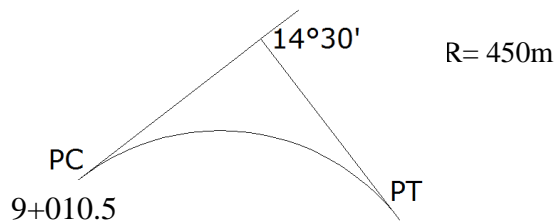
- 1) For the given data, find the radii R_1 and R_2 , and true station kilometer of point B.

$\Delta_1 = 30^\circ$	$\overline{PT_1 - PC_2} = 80 \text{ m}$	$R_2 = 2R_1$	St.Km. A: 0 + 000.000
$\Delta_2 = 40^\circ$	$\overline{PT_2 - PC_3} = 90 \text{ m}$	$R_3 = 200 \text{ m}$	St.Km. PI_1 : 3 + 048.000
$\Delta_3 = 25^\circ$	$\overline{PT_3 - B} = 100 \text{ m}$		St.Km. PI_2 : 3 + 349.400



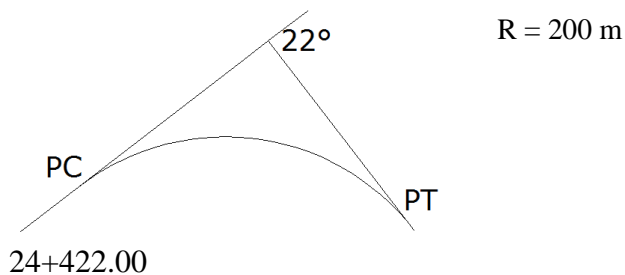
- 2) In a horizontal curve, the tangent and long chord lengths are given as 80.41 m and 139.27 m respectively. Find the length of the curve.

3)



Prepare data table for staking out the horizontal curve using deflection angle method.

4)



Prepare data table for staking out the horizontal curve using coordinate method.

- 5) For a horizontal curve the design speed is 100 km/hr and the radius of the curve is 400 m. Control the curve according to superelevation requirements. Is it suitable or not?