

Given:

$$\begin{aligned}\Delta &= 37^{\circ}42'27'' \\ R &= 650.50' \\ PC &= 3+42.17\end{aligned}$$

Find:

Deflection angles and sub-chords to layout this curve on half stations.  
Include the midpoint of arc in the table.

$$\begin{aligned}(1) \quad \Delta &= 37^{\circ}42'27'' \\ (2) \quad R &= 650.50' \\ (3) \quad L &= \underline{428.11'} \\ (4) \quad C &= \underline{420.42'} \\ (5) \quad T &= \underline{222.13'} \\ (6) \quad M &= \underline{34.90'} \\ (7) \quad E &= \underline{36.88'} \\ (8) \quad D_A &= \underline{08^{\circ}48'29''} \\ (9) \quad D_C &= \underline{08^{\circ}49'00''} \\ (10) \quad df &= \underline{0.0440^{\circ}}\end{aligned}$$

STATION	$l$	$\alpha/2$	SC	SC (200' tape)
PC 3+42.17	-0-	-0-	-0-	
3+50	<b>7.83'</b>	<b>00°20'41"</b>	<b>7.83'</b>	
4+00	<b>57.83'</b>	<b>02°32'49"</b>	<b>57.81'</b>	
4+50	<b>107.83'</b>	<b>04°44'56"</b>	<b>107.71'</b>	
5+00	<b>157.83'</b>	<b>06°57'03"</b>	<b>157.44'</b>	<b>-0-</b>
5+50	<b>207.83'</b>	<b>09°09'10"</b>	<b>206.95'</b>	<b>49.99'</b>
MPOC <b>5+56.23</b>	<b>214.06'</b>	<b>09°25'38"</b>	<b>213.10'</b>	<b>56.21'</b>
6+00	<b>257.83'</b>	<b>11°21'17"</b>	<b>256.15'</b>	<b>99.90'</b>
6+50	<b>307.83'</b>	<b>13°33'24"</b>	<b>304.97'</b>	<b>149.67'</b>
7+00	<b>357.83'</b>	<b>15°45'32"</b>	<b>353.34'</b>	<b>199.21'</b>
7+50	<b>407.83'</b>	<b>17°57'39"</b>	<b>401.18'</b>	<b>49.99'</b>
PT <b>7+70.28</b>	<b>428.11'</b>	<b>18°51'14"</b>	<b>420.43'</b>	<b>70.25'</b>