



PC - Point of Curve  
 PI - Point of Intersection  
 PT - Point of Tangent

Decide point location (PC, PI, PT)

$\Delta$  is known.

R is chosen by engineers.

$$\frac{L}{2\pi R} = \frac{\Delta}{360} \Rightarrow L = \frac{\Delta R \cdot 2\pi}{360} = \frac{\Delta R}{57.296}$$

$$T = R \tan \frac{\Delta}{2}$$

$$E = \frac{R}{\cos \frac{\Delta}{2}} - R = R(\sec \frac{\Delta}{2} - 1)$$

$$M = R(1 - \cos \frac{\Delta}{2})$$

$$C = 2R \sin \frac{\Delta}{2}$$

US customary has a variable D - degree of curve

$$\frac{D}{360} = \frac{100}{2\pi R} \Rightarrow D = \frac{5729.58}{R}$$