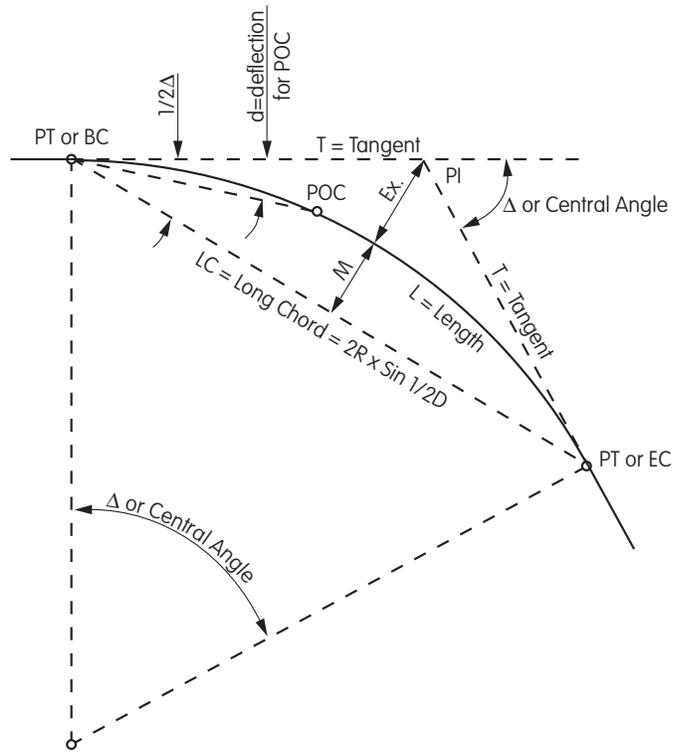


Curve Functions

- R = Radius
- T = Tangent Distance
- PC = Point of Curvature
- PT = Point of Tangency
- Ex. = External
- L = Length of Curve
- LC = Long Chord
- PI = Point of Intersection
- D = Delta or Central Angle
- d = Deflection for Point on Curve
- M = Middle Ordinate



Curve Data required are: Δ, Radius, Tangent, Length and External, obtained as follows;

$$D = \text{Given}; \tan \frac{1}{2}\Delta = \frac{T}{R}$$

$$D \text{ in degrees} = \frac{L \times 3,437.7467}{R}$$

$$R = \text{Given}; R = \frac{T}{\tan \frac{1}{2}\Delta}$$

$$T = R \tan \frac{1}{2}\Delta$$

$$\text{or } L = L = \frac{2\pi R \Delta}{360^\circ} \text{ R func D. See Length of Arc Table on page 2-2.1.}$$

$$Ex = R \text{ exsec } \frac{1}{2}\Delta; M = R \text{ vers } \frac{1}{2}\Delta$$

$$d(\text{min}) = \frac{1,718.88}{R} \text{ arc length, see Deflection and Chord Table on page 2-3.1.}$$

$$\text{exsec} = \sec - 1 = \frac{1}{\cos} - 1$$

$$\text{vers} = 1 - \cos$$