

## Circular Curve Equations

Equations	Units
$R = \frac{180^\circ}{p} \times \frac{L}{D}$	m or ft.
$D = \frac{180^\circ}{p} \times \frac{L}{R}$	degree
$L = \frac{p}{180} \times RD$	m or ft.
$T = R \tan \frac{D}{2}$	m or ft.
$E = \frac{R}{\cos \frac{D}{2}} - R$	m or ft.
$C = 2R \sin \frac{D}{2}, \text{ or } = 2R \sin DC$	m or ft.
$MO = R \frac{a}{e} \left[ 1 - \cos \frac{D \ddot{\theta}}{2 \dot{\theta}} \right]$	m or ft.
$DC = \frac{D}{2}$	degree
$dc = \frac{L_c}{L} \frac{a}{e} \frac{D \ddot{\theta}}{2 \dot{\theta}}$	degree
$C' = 2R \sin(dc)$	m or ft.
$C = 2R \sin(DC)$	m or ft.
$tx = R \sin(2dc)$	m or ft.
$ty = R[1 - \cos(2dc)]$	m or ft.