

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

$$100 = \frac{D_A}{360} \cdot 2\pi R$$

$$D_A = \frac{18000}{\pi \cdot R}$$

$$T = R \cdot \tan\left(\frac{\Delta}{2}\right)$$

$$\tan\left(\frac{\Delta}{2}\right) = \frac{T}{R}$$

$$R = \frac{T}{\tan\left(\frac{\Delta}{2}\right)}$$

$$C = 2 \cdot R \cdot \sin\left(\frac{\Delta}{2}\right)$$

$$\sin\left(\frac{\Delta}{2}\right) = \frac{C}{2R}$$

$$R = \frac{C}{2 \cdot \sin\left(\frac{\Delta}{2}\right)}$$

$$100 = 2 \cdot R \cdot \sin\left(\frac{D_C}{2}\right)$$

$$D_C = 2 \cdot \text{asin}\left(\frac{50}{R}\right)$$

$$M = R \left[ 1 - \cos\left(\frac{\Delta}{2}\right) \right]$$

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

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

$$d_f = \frac{90}{\pi R}$$

$$d_f = \frac{D_A}{200}$$

$$d_f = \frac{\Delta}{2 \cdot L}$$

$$E = R \left[ \frac{1}{\cos\left(\frac{\Delta}{2}\right)} - 1 \right]$$

$$\cos\left(\frac{\Delta}{2}\right) = \frac{R}{R + E}$$

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

$$\cos\left(\frac{\Delta}{2}\right) = \frac{M}{E}$$

$$\tan\left(\frac{\Delta}{4}\right) = \frac{M}{\left(\frac{C}{2}\right)} = \frac{2M}{C}$$

$$\frac{E}{\sin\left(\frac{\Delta}{4}\right)} = \frac{T}{\sin\left(90 + \frac{\Delta}{4}\right)}$$

$$\frac{E}{T} = \frac{\sin\left(\frac{\Delta}{4}\right)}{\sin\left(90 + \frac{\Delta}{4}\right)}$$

$$\frac{E}{T} = \frac{\sin\left(\frac{\Delta}{4}\right)}{\cos\left(\frac{\Delta}{4}\right)} = \tan\left(\frac{\Delta}{4}\right)$$