Calculating Downtilt

Formula

$$\text{angle} = \tan^{-1}\left(\frac{(h_1-h_2)}{d}\right)$$

Where: h_1 = Elevation of the base antenna (ft)
h_2 = Elevation of the mobile antenna (ft)
d = Distance (ft)

Example

1 mile = 5,280 ft
6.2 miles x 5,280 = 32,736 ft
2400 ÷ 32, 736 = 0.0733138
$\tan^{-1}(0.0733138)$ = 4.2 degrees