



Calculation of Altitudes

$$M = Alt_1 = \tan(A) \sin(Y) \frac{D}{\sin(180 - X - Y)}$$

$$N = Alt_2 = \tan(B) \sin(X) \frac{D}{\sin(180 - X - Y)}$$

$$Z = AvgAlt = (M + N) / 2$$

$$E = Error = \frac{(M - N)}{(M + N)} * 100\%$$

- If X or Y is zero then use the single station formulas.
- If Error % is greater than 10% then "Track NOT closed" and no valid altitude is calculated.
- Altitude angles should be between 30 and 55 degrees.