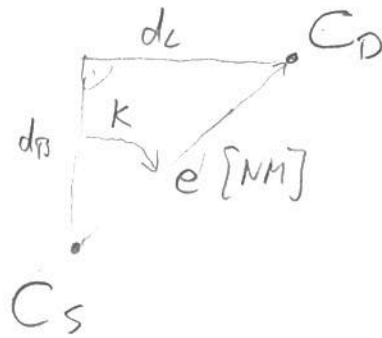


Aviation Math. get Coordinate (1)

I $k = 0 \dots 90^\circ$



$$d_B = e \cdot \cos k$$

$$d_L = e \cdot \sin k$$

C_S - Start-Coordinate

C_D - Destination-Coordinate

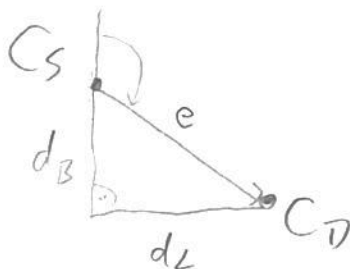
k - kurs ($0 \dots 359,9^\circ$)

e - Entfernung [NM]

d_B - Differenz - Breite [°]

d_L - Differenz - Länge [°]

II $k = 90 \dots 180$



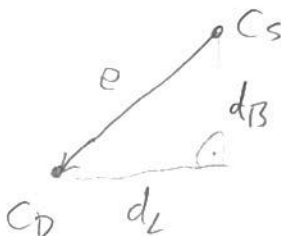
$$k_2 = k - 90$$

$$d_B = e \cdot \sin k_2$$

$$d_L = e \cdot \cos k_2$$

k	k_2	d_B	d_L
90	0	0	e
180	90	e	0

III $k = 180 \dots 270$



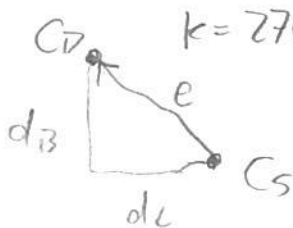
$$k_3 = k - 180$$

$$d_B = e \cdot \cos k_3$$

$$d_L = e \cdot \sin k_3$$

k	k_3	d_B	d_L
180	0	e	0
270	90	0	e

IV $k = 270 \dots 360$



$$k_4 = k - 270$$

$$d_B = e \cdot \sin k_4$$

$$d_L = e \cdot \cos k_4$$

k	k_4	d_B	d_L
270	0	0	e
360	90	e	0

$$D_B = \frac{d_B}{60 \text{ NM}}$$

Differenz - Breite [°]

$$D_L = \frac{d_L}{a \cdot 60 \text{ NM}}$$

Differenz - Länge [°]

$$a = \cos \left(\frac{B_{CS} + B_{CD}}{2} \right)$$

$$\text{I} \quad B_{CD} = B_{CS} + D_B$$

B-Breite [°]

$$\text{II} \quad B_{CD} = B_{CS} - D_B$$

$$\text{III} \quad B_{CD} = B_{CS} - D_B$$

$$\text{IV} \quad B_{CD} = B_{CS} + D_B$$

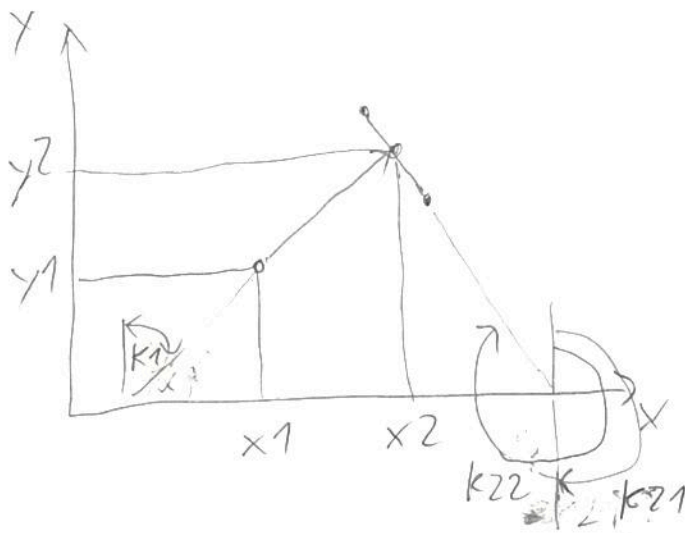
$$\text{I} \quad L_{CD} = L_{CS} + D_L$$

L-Länge [°]

$$\text{II} \quad L_{CD} = L_{CS} + D_L$$

$$\text{III} \quad L_{CD} = L_{CS} - D_L$$

$$\text{IV} \quad L_{CD} = L_{CS} - D_L$$



$k_1 = \text{Aviation Math.}$
 $\text{calculate}(\log(), \text{dir})$

$$k_{21} = k_1 + 90^\circ$$

$$k_{22} = k_1 + 270^\circ$$

$> 360^\circ$ ~~weg um d~~
 $\rightarrow -360^\circ$

~~get~~
~~Set~~ ^{get} ~~Coordinate~~ (~~src~~ ^{Coordinate}, Kurs, Entfernung)

src Latitude $-90 \dots 90$
 src Longitude
 $-179,999 \dots 180$

true Trach
 [Grad]
 $0 \dots 359,999$

distance Value
 [NM]