

Noon Sight

Date = _____ Object = Sun

HeightEye^{above}_{waterline} = _____ ft.
 Index Error = _____ ' on off arc

Dawn: _____

Sunset: _____

Difference: _____

Half-way between Dawn and Sunset: _____

Estimated Time of Local Apparent Noon: _____

hs	°	'	
IC			
hs ^{corr}	°	'	
dip			
App. Alt.	°	'	
Main Corr.			
Ho	°	'	

89°60.0'	
- _____ ' Ho	
_____ ' Subtotal	
+/- _____ ' Declination	
_____ ' Latitude	

Rules (see Budlong, pp. 60-61):

For contrary name:

$$\text{Lat} = (89^\circ 60' - \text{Ho}) - \text{Declination}$$

For same name, DR latitude bigger than declination of sun

$$\text{Lat} = (89^\circ 60' - \text{Ho}) + \text{Declination}$$

For same name, DR latitude less than declination of sun

$$\text{Lat} = (89^\circ 60' - \text{Ho}) - \text{Declination}$$

Alternate form of Rules:

Where zenith distance is $90^\circ - \text{Ho}$, declinations south of the equator have negative values, and zenith distances have negative values if your shadow points south at noon, then:

$$\text{Latitude} = \text{z.d.} + \text{Dec}$$

Handle negative numbers as you would in any algebra equation.