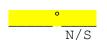
Calculating Great Circle Courses/Distances (or Reducing Sextant Sights)

DATA INPUTS

MA must be < 90° for these equations to work.

1. Sin(MA) X $Cos(Lat_{dest})$ = Sin(R) = R°

2. $Sin(Lat_{dest}) \div Cos(R) = Sin(LatQ) = Latitude of Q^{\circ}$



Q has same sign as $\text{Lat}_{\text{Destination}}.$

3. LatAP ~ LatQ = diffLat

4. Cos(R) X Cos(diffLat) = Sin(Hc) = Hc°



5. $Sin(R) \div Cos(Hc) = Sin(Z) = Azimuth$



Use N if Destination (or GP) is N of AP

Use E if Destination (or GP) is E of AP

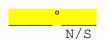
Distance =
$$(90^{\circ} - Hc) * 60$$

Calculating Great Circle Courses/Distances (or Reducing Sextant Sights)

DATA INPUTS

1.
$$Sin(MA)$$
 X $Cos(Lat_{dest}) = Sin(R) = R^{\circ}$

2.
$$Sin(Lat_{dest}) \div Cos(R) = Sin(LatQ) = Latitude of Q^{\circ}$$



Q has same sign as $\text{Lat}_{\text{Destination}}.$

4.
$$Cos(R)$$
 X $Cos(diffLat) = Sin(Hc) = Hc^{\circ}$



5.
$$Sin(R) \div Cos(Hc) = Sin(Z) = Azimuth$$



Use N if Destination (or GP) is N of AP

Use **E** if Destination (or GP) is E of AP

Course₃₆₀ =
$$_{---}^{\circ}$$

Distance = $(90^{\circ}- \text{Hc})$ * 60