

Lunar Observations

To find the true Distance

By Bowditch (second method)
Rule.

Write down in two columns the following
Logarithms to four places of figures
viz.

in Col 1 st	in Col 2 ^d
Sine app Dist	Tang app Dist.
Co sec Sun or Stars app alt.	Co sec moon's app alt.
Prop Log moon's Hor Par.	Prop Log moon's Hor Par.

rejecting the 10th in the in the indexes.

The sum of Column 1st will be the ~~proportional~~ Logarithm of the first correction to be found at the top of table 47th and the sum of Col 2^d will be the Logarithm of the second correction, to be found at the top of Table 47th if the apparent Distance be more than 90° but at the bottom when the Distance is less than 90°. Then take a third correction from Table 48th corresponding to the ^{nearest degrees of} Distance and altitudes - These three corrections added to the apparent distance decreased by 10° will give the true distance.

Note When the Sun is used instead of a Star take from Table 48th Small Table P on the same pages when the third correction is found the correction corresponding to the Sun and Moon's altitudes and apply it to the above corrected distance as directed in Table P

To find the true distance by Turners
or Wards Tables. (omitting Wards 3 & 4th cor-
rections)

Rule

Find the Nearest degrees of the greater and
less altitudes in the left hand side columns
of the table, and the Nearest degree of apparent
distance at top and take out the correspond-
ing correction which is always to be added to
the apparent dist. this will give the first cor-
rected dist.

Then write down in two columns
the following logarithms to four places of figures
(viz.)

in Column 1 st	in Column 2 ^d
The Sine of the apparent dist	Tang app dist
Co sec of the Sun or Stars app alt	Co sec of D app alt
& Proportional Log D Hor Parallax	& Proportional Log D. H. Par

rejecting 20 in each index -

The Sum of Col 1st will be the Proportional
Log of Arch A. and The Sum of Col 2^d the
Pro Log of Arch B. if the distance is less
than 90° the difference of these arches is to be
taken if more than their sum, this gives the
2^d correction which is always to be subtracted
from the first corrected dist. if Arch A is
greater than Arch B. but if Arch B is the
greatest it is to be added this gives the true dist.