

4. How do you make that adjustment ?

Place the O on the vernier to the O on the arc, hold the sextant horizontally, look through the telescope and horizon glass at the horizon, and see if the true and reflected horizons are in one straight line, if not, turn the upper screw at the back of the glass until they are.

5. What is the third adjustment ?

To set the Horizon glass parallel to the index glass.

6. Place the O on the vernier to the O on the arc hold the sextant perpendicularly, look through the telescope and horizon glass at the horizon, and see if the true and reflected horizons appear in one straight line, if not, turn the lower screw at the back of the glass until they do.

7. In the absence of screws how would you proceed ?

Find the index Error.

8. How would you find the index Error by the horizon ?

Place the O on the vernier to the O on the arc, hold the sextant perpendicularly, and looking through the telescope and horizon glass at the horizon, turn the tangent screw until the true and reflected horizons appear in one straight line, the reading on, or off the arc will be the index error.

9. How is it applied ?

Add if off the arc ; subtract if on.

Questions 10 and 11 are done on the sextant.

12. How do you find the index error by the sun ?

Measure the sun's diameter, both on and off the arc, and half the difference of the two readings will be the index error.

13. How is the same applied ?

Add if the reading off the arc is the greatest, subtract if the reading on is the greatest.

14. What proof have you that these readings have been taken with tolerable accuracy ?

Add them together, and divide by 4, the result should be equal to the sun's semi-diameter, as found in the Nautical Almanac for that day.