

174. A ship from lat. $10^{\circ} 10'$ S. sailed in a direct course between north and west, for several days, when it was found by observation, that her difference of lat, her difference of long. and her departure were equal, and the degrees and minutes of her latitude, were also equal to those of her longitude. Required the course steered, the distance run, the lat. and long. in, and the longitude left.

175. Sep. 21, 1858, in lat $46^{\circ} 20'$ N. long. $160^{\circ} W$. at 9h. 20m. 30s. P.M., ap. time at place. Required the apparent and true altitude of the moon, and a Arietis, and also the true distance between them at that time.

176. Required the ap. time at Port Jackson, New Zealand long. $174^{\circ} 23' 30''$ E. and at San Francisco, California, long. $122^{\circ} 27' 23''$ W. when it is noon May 1st, at St. John's, N. F.

177. A man of war, bound to the Western Isles,
Whose distance then S.E. was ninety miles,
With flying topsails bent her watry way
In a swift current through the briny spray:
Fifty miles on her larboard tack she bore;
Sixty on her starboard, and then reached the shore
From hence, ye sons of the raging main,
The course made good upon each tack explain.

178. Oct. 13, 1858; the sun, Venus, Antares, Fomalhaut, and a Pegasi are given in the Nautical Almanac for lunar observation; required to which of these preference should be given in order to obtain the greatest degree of confidence in the accuracy of the time found by observation.

179. Nov. 22, 1858, (civil time) about 2h. 50m. A.M. at ship, supposing a vessel bound for St. John's, N. F. after a long continuance of fog, got a clear sky and horizon, and took the altitude of the star Sirius on the meridian, and found it $26^{\circ} 41' 15''$, at the same time the altitude of Dubhe (a Ursae Majoris) east of meridian,