 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET REVISION HOME TEST SHEET**

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| **SUBJECT** | **NAUTICAL SCIENCE** | **GRADE** | **10** | **DATE** | **11-15/05/20** |
| **TOPIC** | **ANSWERS TO SAILING** | **TERM 1**  **REVISION** | **X** | **TERM 2 CONTENT** | **X** |

**NAUTICAL SCIENCE GRADE 10 REVISION TEST.**

1. What is the difference in latitude (d.lat) and the difference in longitude (d,long) in minutes of arc between the following positions:

a. Position X: 10° 45’ N 16° 39’ W Position Y: 55° 10’ N 42° 18’ W

b. Position X: 15° 59’ N 20° 11’ W Position Y: 22° 06’ S 32° 19’ E

c. Position X: 56° 12’ S 110° 25’ E Position Y: 32° 16’ S 19° 10’ E

d. Position X: 40° 15’ N 140° 10’ E Position Y: 38° 25’ S 160° 52’ W

2. You intend steaming from a position A (33° 50’ S 18° 32’ E to a position B. If the D.lat is 1790’ N and the D.long is 3240’ W, what is the latitude and longitude of position B?

3. If you sailed from position A to a position B (28° 29’ N 135° 19’ E) and the d.lat was 1520’ N and the d.long was 3910’ E, what would the latitude and longitude of position A be?

4. You intend sailing from Cape Town to New York. The distance between the two ports is 5640 miles and you hope to maintain an average speed of 16 knots. If you leave Cape Town at 0700 on 12 May when do you expect to arrive in New York?

5. You intend sailing from Cape Town to Buenos Aires. You are expected to arrive in Buenos Aires at 1230 on 28 May. The distance between the two ports is 2956 miles and you intend maintaining 16 knots. What is the latest you will have to depart from Cape Town?

6. You intend sailing from Durban to Fremantle. You will depart Durban at 0800 on 2 May and you are expected to arrive in Buenos Aires at 1400 on 11 June. If the distance between the ports is 3552 miles, what speed must you maintain in order to arrive in Buenos Air