Sci  
 Province of the

EASTERN CAPE

EDUCATION

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

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

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

**QUESTIONS 1**

Your vessel departs a position A (08° 20’ N 24° 30’ E) and steams due east at 16 knots for 3 days to a position B. From B you steam due south at 16 knots for a further 5 days to a position C. What is the latitude and longitude of position C?

**Question 2**

Your vessel is due to sail from Shanghai (31° 14’ N 121° 28’ E) to Kobe (34° 40’ N 135° 12’ E). You plan to maintain an average speed of 12 knots.

Determine:

a. By plane sailing the course and distance between the two ports.

b. If you left Shanghai at 0800 H on 12 August, when would you arrive in Kobe in your destination’s zone time?

**Question 3**

Your vessel is due to sail from Port Elizabeth (33° 57’ S 25° 39’ E) to Melbourne (37° 50’ S 144° 58’ E). You plan to maintain an average speed of 16 knots.

Determine:

a. By Mercator sailing the course and distance between the two ports.

b. If you departed Port Elizabeth at 1200 B on 15 August when would you arrive in Melbourne in Australian zone time?