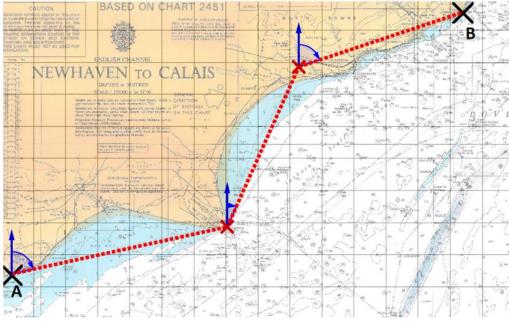
Key facts:

• A bearing is measured **clockwise**, from North and is written with three-figures (eg: 015° or 228.5°).

The task:

• Plot a route on the map for an aeroplane to follow, staying as close to the coastline as possible, with exactly **three** legs of the journey (that is, **two** changes of direction):



Begin at the point marked A, and finish at B.

• For each leg, give the **distance** (*km*) and the **bearing**. *For example:*

Leg	Distance	Bearing		
Leg 1	267 <i>km</i>	078°		
Leg 2	210.5 <i>km</i>	024°		
Leg 3	209km	072°		

Plot your course using the table below:

Leg	Distance (scale: 1cm: 25km)	Bearing (clockwise, from North)
Leg 1:		
Leg 2:		
Leg 3:		

Once you're done, enter your values into the spreadsheet to test the accuracy of your directions:

Following these	e directions takes
me to within	<i>km</i> of B.

(the distance between A and B is around 650km, so if you are off by only 20km or so, your measurements are pretty good!)

Spreadsheet can be found at: http://www.thechalkface.net/resources/Bearings Vectors Conversion.xls

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Extension task

A plane is sighted at 06:00, on a bearing of 090° from A, and a bearing of 180° from B. At 06:20 the bearing from A is 086° , and the bearing from B is 200° .

By marking these two positions on the chart, use the scale (1cm: 25km) to calculate the approximate speed of the plane, and predict **when** and **where** it will first be over land.

Predict **when** the plane will be **due north of** *A*, assuming it remains on the same course. Calculate the **bearing from** *B* that you would expect at this time.

Solutions

Travelling at around 375 kmph. Should make land at around 06:53. Will be due north of A at around 07:40, on a bearing of 108° from B.