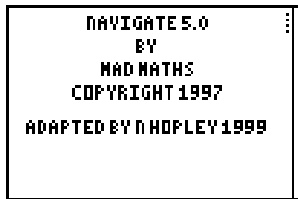
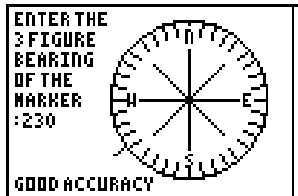


Using Bearings to navigate a ship

run the program **NAVIGATE**



This program gives practice of reading bearings off a compass and then navigating a ship between ports. As a follow up, there is practical consolidation of drawing a scale diagram of the route that was taken.



You must first sit an exam that will require you to read 5 bearings accurately. It expects 3 figure bearings. Mistakes can be corrected by pressing the CLEAR button.

If you are within 5 degrees it says "good accuracy". If you are spot on then it also tells you that. If more than 5 degrees out, it tells you how far away you were.

After the five questions, you either fail, just pass, have a good pass, have a very good pass or have a pass with distinction.

You are then given a certificate number to note down - you cannot sail without this number!



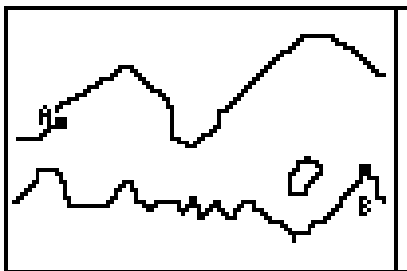
For the teacher only:

The certificate number is a multiple of 13 between 364 and 988. Higher certificate numbers are awarded to those with the best accuracy from the exam. Hence you can see at a glance how good students are.

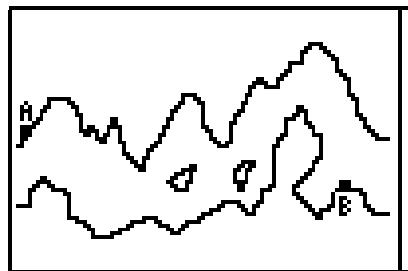
Multiples of 13 are used in an attempt to stop people guessing at a certificate number and going on to sail without proving their skills first!

After entering a valid certificate number, there are three routes of difficulty to sail.

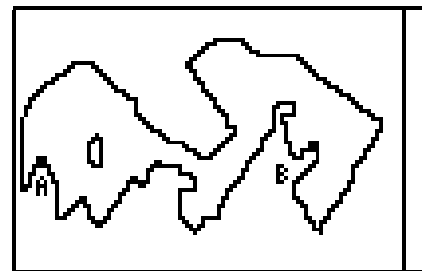
In addition, you can sail from A to B or from B to A. Just follow the on screen instructions for which buttons to press.



New Recruit



Captain



Admiral

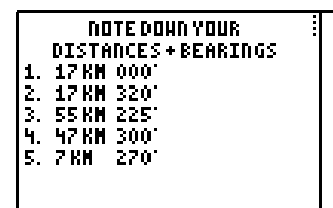
For sailing, alter the bearing you want using the LEFT and RIGHT arrow buttons - these act as if you were on the bows of the ship wanting to turn to port or starboard.

Hold down the UP arrow key to go forwards along your intended bearing.



After successfully docking, you are given a summary of all the distances and bearings that you took. These can be transferred to the worksheet.

Each leg of the journey can then be accurately drawn using ruler and protractor.

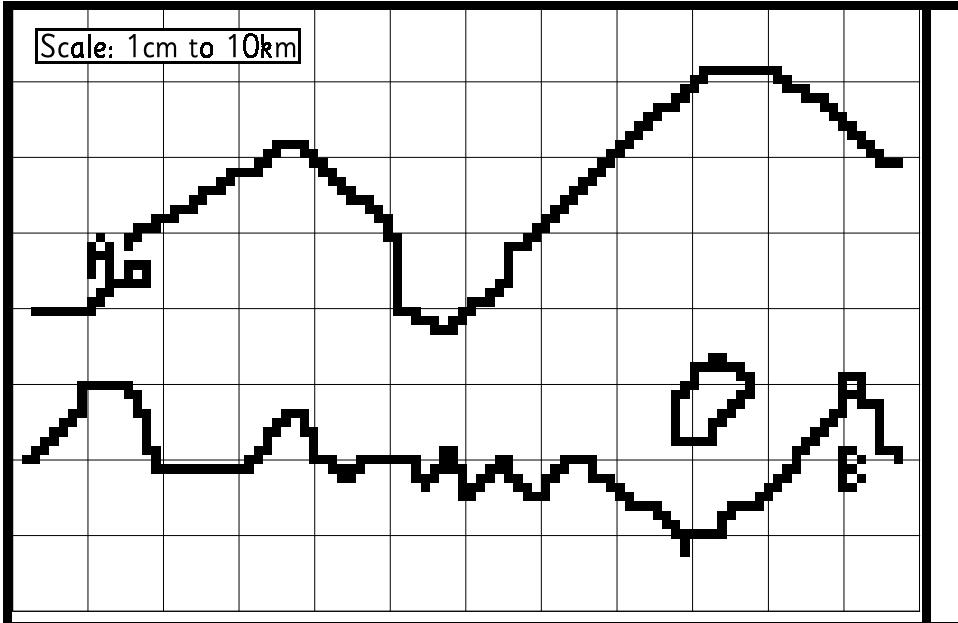


Beware of running aground on the shoreline, becoming lost at sea (by going off the screen) or even being stopped by the coastguard for changing course too often!

Name: _____

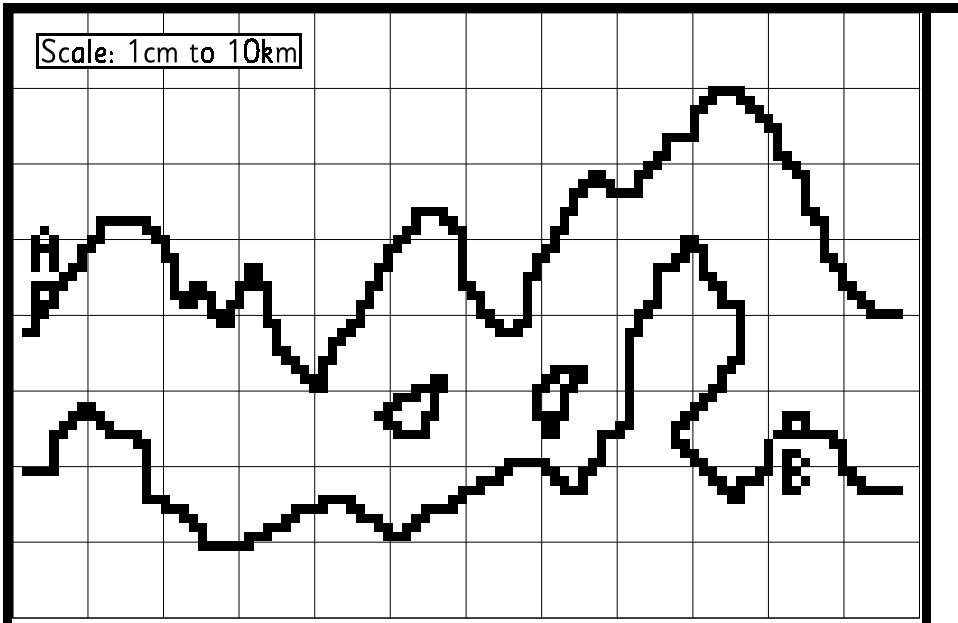
Sit the exam before sailing

Certificate number: _____



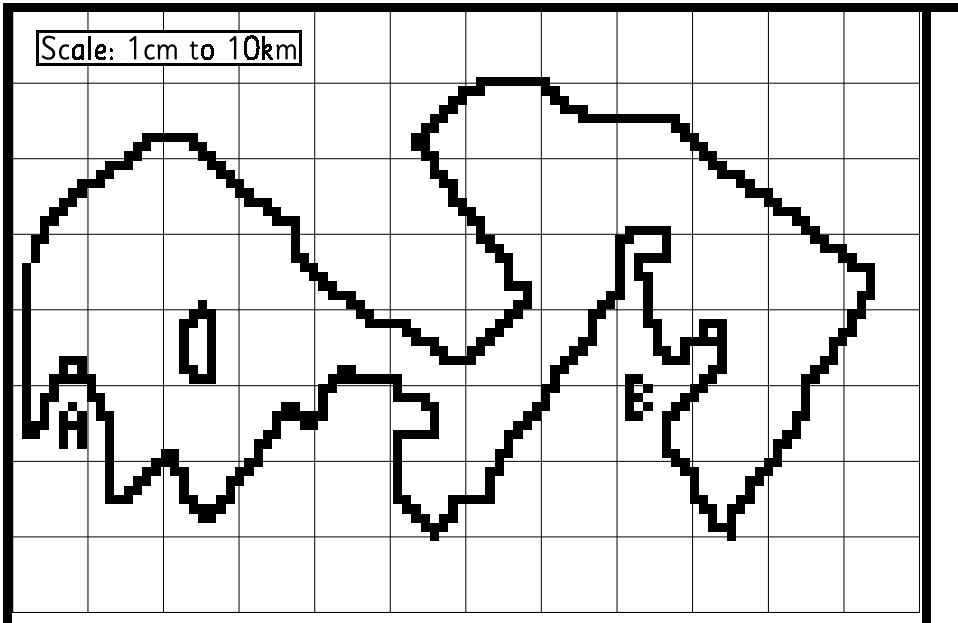
New Recruit

	km	deg		km	deg
1.			8.		
2.			9.		
3.			10.		
4.			11.		
5.			12.		
6.			13.		
7.			14.		



Captain

	km	deg		km	deg
1.			8.		
2.			9.		
3.			10.		
4.			11.		
5.			12.		
6.			13.		
7.			14.		



Admiral

	km	deg		km	deg
1.			8.		
2.			9.		
3.			10.		
4.			11.		
5.			12.		
6.			13.		
7.			14.		