

## Making an Ocean Floor Profile

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Introduction



Imagine you are the sonar crew working with the world famous oceanographer, Captain Jacques Yves Cousteau of the sailing ship *Calypso*. Your scientific mission is to chart the Atlantic sea floor along 39°N latitude. You set sail from Atlantic City, New Jersey and traverse the mighty ocean to your destination in Lisbon, Portugal. Along the way, you use your sophisticated sonar to probe the unseen depths below. You collect a wealth of data on the depth of the ocean floor, which is in the table on the next page. Now, you will use that data to create a graph and profile of the ocean bottom. Good luck, and may the seas be kind to you...

### Set up Your Graph Paper

Take time to make sure that your graph paper is properly set up. A well-designed graph includes the following:

1. A **title** that identifies your data
2. An **x-axis** and a **y-axis**
3. **Axis labels** including metric **units**
4. Well-chosen number **scales** along each axis

Here are some questions to help design your graph:

1. What data and label go along the **x-axis**?
2. What data and label go along the **y-axis**?
3. If we are plotting depth **below** the ocean surface, where should we put **zero** on the y-axis?

### Plot Your Data

**Plot** each point in the data table on your graph. Once all of the points are plotted, **connect** the points with straight lines. This will give you a profile of the changing depth of the ocean as you travel along 39°N latitude in the Atlantic Ocean from west to east.

<b>Atlantic Ocean Profile Data along 39°N Latitude</b>		
<b>Sonar Reading</b>	<b>Distance from New Jersey (km)</b>	<b>Depth to Ocean Floor (m)</b>
1	0	0
2	160	165
3	200	1800
4	500	3500
5	800	4600
6	1050	5450
7	1450	5100
8	1800	5300
9	2000	5600
10	2300	4750
11	2400	3500
12	2600	3100
13	3000	4300
14	3200	3900
15	3450	3400
16	3550	2100
17	3600	1330
18	3700	1275
19	3950	1000
20	4000	0
21	4100	1800
22	4350	3650
23	4500	5100
24	5000	5000
25	5300	4200
26	5450	1800
27	5500	920
28	5600	180
29	5650	75
30	5700	0