

Activity Sheet: Adding and Subtracting With Negative Numbers

Name: _____

Date: _____

How Low Can You Go?

The Living Ocean Institute is a world-renowned oceanographic research organization specializing in Pacific plant and animal life. One current research project is in the far South Pacific, on the coast of Antarctica, where scientists are collecting data on ocean and atmospheric temperatures. The scientists use a combination of research vessels, unmanned underwater probes, and land-based temperature probes stationed at different elevations and ocean depths to gather their data. Some of this data is collected below. Use the table to answer the questions that follow.



Name of Probe	Puck	Ariel	Cordelia	Feste	Regan	Iago
Distance Above or Below Sea Level (in Meters)	-150	250	-325	0	-495	725
Temperature (in °C) on June 21 at Noon	-2	-40	0	-20	-1	-65

WORK THE MATH

Use a separate sheet of paper for your responses.

You may use the number line to the right to perform your calculations.

- 1** The Living Ocean Institute's mini-submarine was performing routine maintenance on the probes. After servicing Puck, it then serviced Cordelia. How far did the mini-submarine have to travel to get to Cordelia from Puck?
- 2** On June 22 at noon, Feste recorded that the temperature dropped 17 degrees from the day before. What was the temperature on June 22?
- 3** Research intern Leonard was in the mini-sub, taking readings from Regan. He climbed to the surface in the mini-sub, and then walked up a hill to Iago to take additional readings. In his log, he noted that his elevation increased by 230 meters ($725 - 495$). Do you agree with Leonard's findings? Explain your thinking.
- 4** On June 22 at noon, Ariel recorded a temperature of -37°C . What was the amount of the temperature change from the 21st to the 22nd?
- 5** Regan had to be brought to the surface for major repairs after an electrical malfunction. In the first phase of the operation, Regan rose 125 meters. How much further did it have to rise to reach the surface?

