

Name _____

Date _____

Calculating Pressure

Use the rule-of-thumb figure of 0.445 psi per foot deep to calculate the water pressure at each location listed in the table below. Recall that there are 5,280 feet in one mile. Also be sure to add 14.7 psi—the standard air pressure at sea level—to each of your water pressure calculations. Record all your calculations in the table.

| Location | Elevation | Pressure |
|---------------------------------------|-----------------------------|----------|
| Challenger Deep in the Mariana Trench | 6.83 miles below sea level | |
| The wreckage of the Titanic | 2.4 miles below sea level | |
| First recorded hydrothermal vent | 1.6 miles below sea level | |
| Loihi submarine volcano summit | 0.62 miles below sea level | |
| Museo Subacuático de Arte | 0.002 miles below sea level | |
| Sea level | 0 miles above sea level | 14.7 psi |
| Mount Everest | 5.5 miles above sea level | 4.5 psi |

**Note that air pressure is usually measured in Pascals (Pa), millibars, or standard atmospheres, but has been expressed here in pounds per square inch (psi) for ease of comparison.*