**Estimating the Speed of a Tsunami**



$$S\left(d\right)=\sqrt{9.8d}$$

d = depth of water in meters, S(d) = the speed in meters/second, 9.8 = acceleration due to gravity.

Information has just come in via satellite that a tsunami has been located off Hilo, Hawaii at an ocean depth of 4,500 m.

National authorities are trying to establish how much preparation time these cities will have:

• San Diego, California

• Newport, Oregon

• Kodiak, Alaska

**Assignment: Identify how long it will take the tsunami to reach each location. Write a complete explanation of each step you used to identify the solution.**

