



Sound waves are sent to the bottom of the ocean. When the waves hit the bottom of the ocean, they bounce back. The time it takes for the sound waves to return is 8 seconds. The speed of sound waves in the water is 1480 m/s. Using $D = rt$, determine the depth of the water.



WORK

$$2t \text{ (time to go down and return)} = 8 \text{ s}$$

$$\text{Therefore } t = 4 \text{ s}$$

$$D = 1480 \text{ m/s} \times 4 \text{ s}$$

$$D = 5920 \text{ m OR } 5.92 \text{ km}$$