

Wavelength in Water

Solution:

The correct answer is d.)

Recall that a change of medium is accompanied by a change in speed of propagation and wavelength - the *frequency* of the wave remains *unchanged*.

Thus, we have:

$$\lambda_{water} = \frac{v_{water}}{f_{water}} = \frac{3.333 \times 10^7 \text{ ms}^{-1}}{433.92 \times 10^6 \text{ s}^{-1}} = 7.68 \text{ cm}$$