

Task. A water wave has a speed of $v = 23.0$ meters/second. If the wave's frequency is $\nu = 0.0680$ hertz, what is the wavelength?

Solution. The wavelength λ is related with the velocity v and the frequency ν of the wave via the following formula:

$$\lambda = v\nu.$$

Substituting values we get

$$\lambda = 23 * 0.068 = 1.564 \text{ m}.$$

Answer. $\lambda = 1.564 \text{ m}.$