3. The fundamental relationship between velocity, frequency, and wavelength is

$$v = f \lambda$$

$$v = (80 \text{ Hz})(4.0 \text{ m}) = 320 \text{ Hz m}$$

We know that 1 Hz = 1 s^{-1}, so the product Hz m can be written as (s^{-1}) m or as m/s to give

$$v = 320 \text{ m / s}$$