

### Answer on Question #74812 Physics / Optics

The wavelength of the electromagnetic wave used for AM broadcasting is  $\lambda = 110$  m. Calculate the frequency of the wave.

**Solution:**

The frequency of the wave is related with wavelength by equation

$$f = \frac{c}{\lambda}$$

So

$$f = \frac{3 \times 10^8}{110} = 2.73 \times 10^6 \text{ Hz} = 2.73 \text{ MHz}$$

**Answer:** 2.73 MHz

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