Question 5520

What is the frequency of a wave if its wavelength is 3.6 x 10-9 m and its velocity is 3.0 x 10(8) m/s?
Please explain your answer

The wavelength is by definition: $\lambda = v\,T = \dfrac{v}{\nu}$ Hence, the the frequency is $\nu = \dfrac{v}{\lambda} \approx 8.33 \cdot 10^{16}\, s^{-1}$