

Answer on Question #71961-Physics-Astronomy-Astrophysics

A microwave has a 3cm wavelength. How many complete microwaves could you fit into a long wave radio wavelength of 1000 m?

Solution

The number of complete microwaves is

$$n = \frac{\lambda'}{\lambda}$$

$$n = \frac{1000}{0.03} = 33333.3333$$

Round to 33333.

Answer: 33333.