**Answer on Question 57549, Physics, Electric Circuits**

**Question:**

A bass drum emits a note at a frequency of $160\,Hz$. Find the wavelength in the air attained by this instrument when the speed of sound in the air is $340\ m/s$.

**Solution:**

We can find the wavelength in the air attained by the bass drum from the wave speed formula:

$$v = f\lambda,$$

here, $v$ is the speed of the sound in the air, $f$ is the frequency and $\lambda$ is the wavelength.

So, we can obtain:

$$\lambda = \frac{v}{f} = \frac{340\ \frac{m}{s}}{160\ Hz} = 2.125\ m.$$

**Answer:**

The wavelength in the air attained by the bass drum is $\lambda = 2.125\ m$.