QUESTION:
Q4.Calculate the wavelength of a 10kHz sound in air at a temperature of 300
SOLUTION:

At a temperature of 300 K the speed of sound in the air is $\upsilon_{sound} = 347.2 \text{ m/s}$

And
$$\lambda = \frac{\upsilon_{sound}}{\nu}$$
$$\lambda = \frac{347.2}{10000} = 0.03477 \text{ m}$$

ANSWER:
$\lambda = 0.03477 \text{ m}$