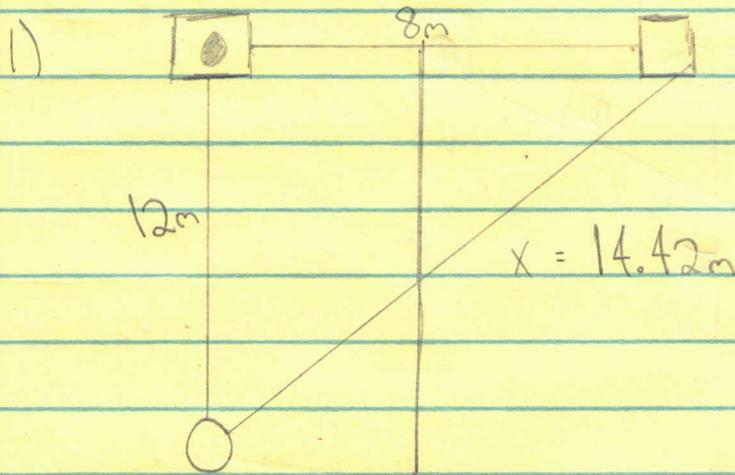


I n t e r f e r e n c e II



Assuming L is bigger than d

$$\Delta \text{Path} = d \sin(\theta) = d \left(\frac{x}{L} \right)$$

$$\Rightarrow \Delta \text{Path} = 8 \frac{14.42}{12} = 2.6 \text{ m}$$

$$2.6 = \frac{(2n-1) \cdot \lambda_1}{2}$$

$$5.3 = \lambda_1 \Rightarrow f_1 = \frac{343}{5.3}$$

$$= 64.31 \text{ Hz}$$

$$f_2 = \frac{343}{1.7}$$

$$= 193 \text{ Hz}$$

$$2.6 = \frac{3\lambda_2}{2}$$

$$5.3 = 3\lambda_2$$

$$\lambda_2 = 1.7$$

$$f_3 = 343$$

$$5.3 = 5\lambda_3$$

$$\lambda_3 = 1.06$$

$$= 327 \text{ Hz}$$