



1)

open - closed \rightarrow 1/4 wave.

$$F_5 = 0.05kH_2 = 50 \text{ Hz}$$

$$V = 330 \text{ m/s}$$

$$F_n = \frac{(2n-1)V}{4L}$$

$$F_5 = \frac{(2(5)-1)V}{4L}$$

$$50 = \frac{9V}{4L}$$

$$4L(50) = 9(330) \text{ Hz}$$
$$200L = 2970$$

$$L = \frac{2970}{200} = 14.85 \text{ m} = \underline{\underline{1485 \text{ cm}}}$$