

65. (a) Using Eq. 17-52 with $L = 120$ cm, we find

$$\lambda_1 = \frac{2L}{1} = 240 \quad \lambda_2 = \frac{2L}{2} = 120 \quad \lambda_3 = \frac{2L}{3} = 80$$

with all values understood to be in centimeters.

- (b) The three standing waves are shown below.

