

$$L = \frac{n\lambda}{2} \quad v = f\lambda \quad f = \frac{nv}{2L} \quad T = \frac{1}{f}$$

for a standing wave on a string

(A) If a human being can hear up to 20000 Hz, how many overtones of a low A ($f=27.5$ Hz) can be heard by the human ear?

(B) Assume the speed on the string which produced this low A is 85.0 m/s, what is the length of the string?