Sample calculations for lab 08

A string as a length L=10 m and a mass per unit length μ=0.3 kg/m. If the string is under a tension T=10 N, find how long it will take for a transverse pulse to travel to the end of the string, be reflected and then to travel back to it's original position, following through with correct SI units.

A string is under a tension of 0.5 N and has a mass per unit length of 0.02 kg/m. If the string is vibrated with transverse oscillations at a frequency of 60 Hz, find the wave length of a standing wave on this string, following through with correct SI units.

Draw the standing wave on the string above, showing nodes and antinodes.