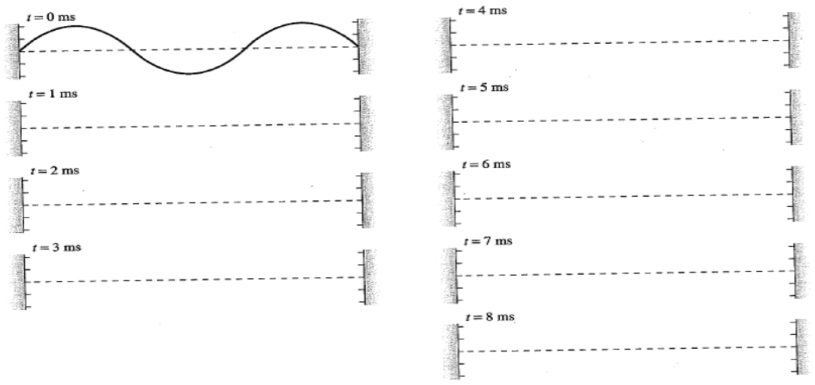
Worksheet on standing waves

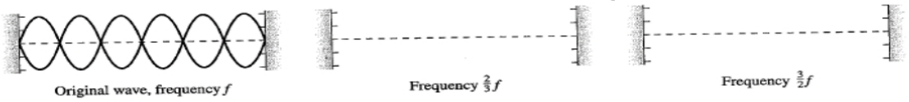
Name _____

This standing wave has a period of 8ms. Draw snapshot graphs of the string at every 1ms from t = 1ms to t = 8ms. Think carefully about the proper amplitude at each instant.



2) The figure below shows a standing wave on a string. It has a frequency f.

a) Draw the standing wave if the frequency is changed to $\frac{2}{3}$ f and to $\frac{3}{2}$ f.



b) Is there a standing wave if the frequency is changed to $\frac{1}{4}$ f ? If so, how many antinodes does it have? If not, why not?