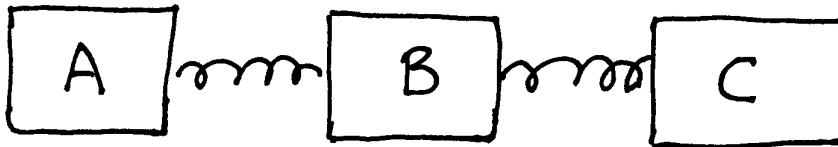


Problem 5H. [10 points]

Three identical objects of mass m are connected by springs of spring constant k , as shown in the figure below. The motion is confined to one dimension. At $t = 0$, the masses are at rest at their equilibrium positions. Then mass A is subjected to the external driving force $F(t) = f_0 \cos(\omega t)$ for $t > 0$. Calculate the motion of the mass C by using the normal coordinates of the system.



Reading Assignment

Read the discussion on the different types of resonances discussed in French pages 105-110, as we have only discussed mechanical and electrical resonances in class.