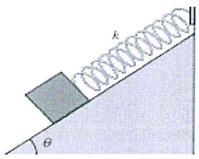
$$f_1(x) = A\sin(kx)$$
$$f_2(x) = A\sin\left(kx + \frac{\pi}{4}\right).$$

What is the wavelength of the resultant wave? What is the amplitude of the resultant wave?

Problem: 9

In the following figure a block weighing 14.0 N, which can slide without friction on an incline plane at an angle 0f $\Theta = 40^0$, is connected to the top of the incline by a massless spring of unstressed length 0.450 m and spring constant 120 N/m

(a) How far the top of the incline is the block's equilibrium point?
(b) If the block is pulled slightly down the incline and released, what is the period of the resulting oscillations?



Problem: 10

In the following figure two identical springs of Spring Constant are attached to a block of mass 0.245 Kg. What is the frequency of oscillation on the frictionless floor? (K = 7580N/m)