Name: _____ Date: _____

Block: _____

Worksheet

Hooke's Law

(1)

1. When a 5.00 kg mass is hung on the end of a certain spring, it stretches 0.260 m. What is the force constant of the spring (in N/m)?

Given Information: Equations Used

Answer: _____

2. A spring of force constant 45 N/m is used to pull a block along a level surface at constant speed. The spring is observed to stretch 12.0 cm while supplying this force. How much force is applied?

F = _____

3. How much does a 55 kg girl compress the spring in a pogo stick when she stands on it? You are given that the spring constant is 78 N/cm.

x = _____

4. How much force must be applied to a spring (k = 1400 N/m) in order to extend it by 0.10 m?

F = _____