Worksheet #2 Hooke's Law

1. What is the elastic force a spring will exert if it has k =175N/m and is stretched 30cm?

2. How far must a spring (spring constant = 35N/m) be pulled in order to exert a force of 63N?

3. How far will a spring with rest length 82cm and spring constant 0.50N/m be if it is stretched until it exerts 0.25N?

4. A spring has a rest length of 1.30m. When a 20kg mass is hung on it, it stretches to 3.60m. What is its spring constant?

5. A spring has rest length 0.500m and k = 32N/m. If it is attached to a 30kg block resting on a surface where μ_s = 0.62, how long will the spring have to be in order to make the block move?