PHYS 201 Sample Final Question Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. State Hooke’s law. Also sketch a spring and show the forces: stretching force and the force by the spring.

|  |
| --- |
|  |

2. A 10.1-kg uniform board is wedged into a corner and held by a [spring](javascript:parent.xlinkeyword('u0015')) at a 50.0° angle, as the drawing shows. The spring has a spring constant of 176 N/m and is parallel to the floor.  
a. Draw a free-body diagram for the board  
b. Find the force exerted by the spring.   
c. Find the amount by which the spring is stretched from its unstrained length.

