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.

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2. A 10.1-kg uniform board is wedged into a corner and held by a spring 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.

 