

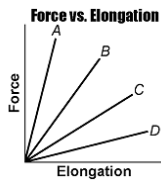
Name \_\_\_\_\_  
Honors Physics  
Period \_\_\_\_\_

Date \_\_\_\_\_  
Energy WS #4H  
Mrs. Nadworny

# A Springs

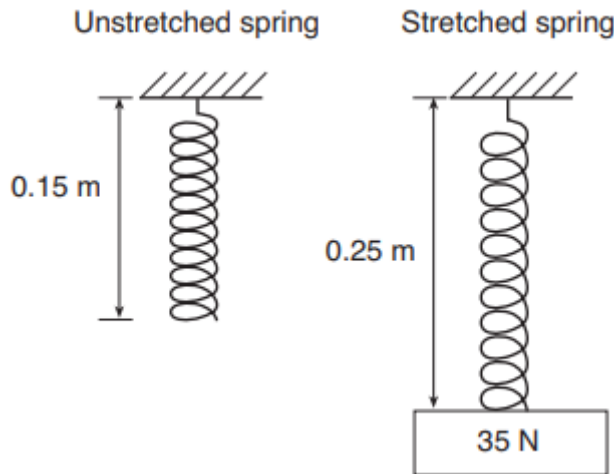
**Directions:** Read online textbook pages 437 – 442. Solve the following problems using the GUESS method and proper significant figures. Be sure to show ALL work.

1. The graph below represents the relationship between the force applied to a spring and spring elongation for four different springs. Which spring has the greatest spring constant?



- (A) A                      (B) B                      (C) C                      (D) D

2. A spring has an unstretched length of 0.40 meter. The spring is stretched to a length of 0.60 meter when a 10.-newton weight is hung motionless from one end. The spring constant of this spring is  
(A) 10. N/m                      (B) 17 N/m                      (C) 25 N/m                      (D) 50. N/m
3. A vertical spring has a spring constant of 100. newtons per meter. When an object is attached to the bottom of the spring, the spring changes from its unstretched length of 0.50 meter to a length of 0.65 meter. The magnitude of the weight of the attached object is  
(A) 1.1 N                      (B) 15 N                      (C) 50. N                      (D) 65 N
4. The diagram below represents a 35-newton block hanging from a vertical spring, causing the spring to elongate from its original length.



Determine the spring constant of the spring.

