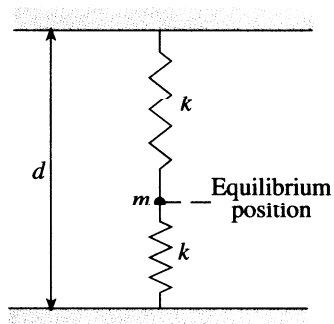


A particle of mass m is suspended by two springs of stiffness k and natural length l_0 between two fixed points a distance d apart. The system is in equilibrium, as shown.



Select the option that corresponds to the energy stored in the two springs.

Options

A 0

B $k \left(\frac{d}{2} - l_0 \right)^2$

C $2k \left(\frac{d}{2} - l_0 \right)^2$

D $2k \left(\frac{mg}{2k} \right)^2$

E $k \left(\frac{d}{2} - l_0 \right)^2 - k \left(\frac{mg}{2k} \right)^2$

F $k \left(\frac{d}{2} - l_0 \right)^2 + k \left(\frac{mg}{2k} \right)^2$

G $2k \left(\frac{d}{2} - l_0 \right)^2 + 2k \left(\frac{mg}{2k} \right)^2$

H $k \left(\frac{mg}{2k} \right)^2$