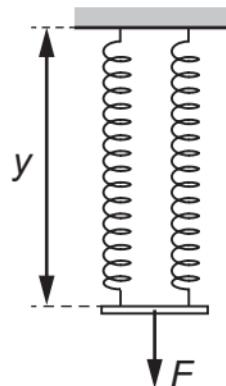
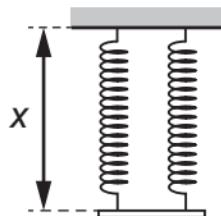


- 22 Two identical springs have the same spring constant k . The springs are connected in parallel. The length of the unstretched springs is x .

A force F is applied to the spring combination. The length of the springs is now y .



Both springs are deformed within their limits of proportionality.

Which expression gives the elastic potential energy stored in **one** of the springs?

A $\frac{1}{4}F(y - x)$

B $\frac{1}{2}F(y - x)$

C $\frac{1}{4}k(y - x)^2$

D $k(y - x)^2$