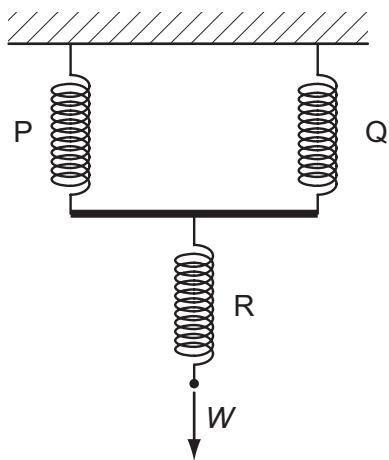


23 Three springs are arranged vertically as shown.



Springs P and Q are identical and have spring constant k . Spring R has spring constant $3k$.

What is the increase in the overall length of the arrangement when a force W is applied as shown?

A $\frac{5W}{6k}$

B $\frac{4W}{3k}$

C $\frac{7}{2}kW$

D $4kW$

Space for working