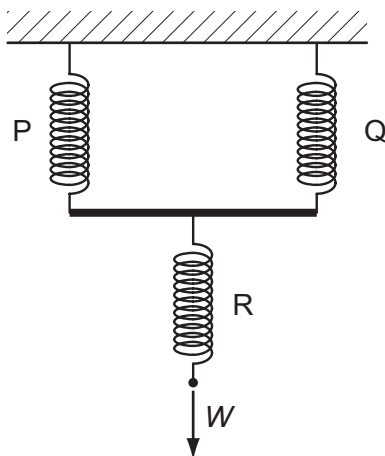


23 Three springs are arranged vertically as shown.



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**