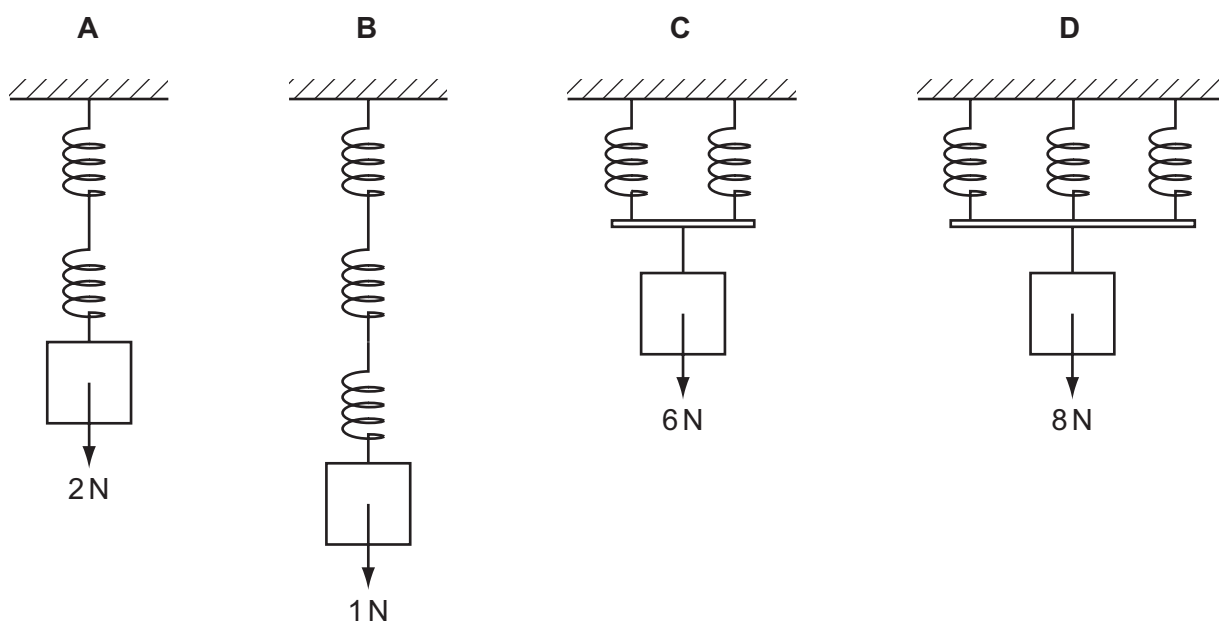


- 23** A number of identical springs, each having the same spring constant, are joined in four arrangements. A different load is applied to each arrangement.

Which arrangement has the largest extension?



- 24** A light wave of amplitude  $A$  is incident normally on a surface of area  $S$ . The power per unit area reaching the surface is  $P$ .

The amplitude of the light wave is increased to  $2A$ . The light is then focussed on to a smaller area  $\frac{1}{3}S$ .

What is the power per unit area on this smaller area?

- A**  $36P$
- B**  $18P$
- C**  $12P$
- D**  $6P$

**Space for working**