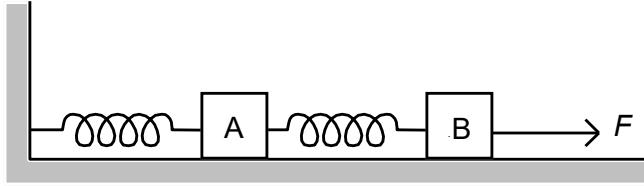


- 6** Two boxes A and B of equal mass m are connected by two identical light springs and are placed on a horizontal smooth surface. A horizontal force F is applied to box B so that the system is in equilibrium.



If the applied force F is suddenly removed, what are the magnitudes of the acceleration of each box at the instant when force F is removed?

| | acceleration of box A | acceleration of box B |
|---|-----------------------|-----------------------|
| A | zero | $\frac{F}{m}$ |
| B | zero | $\frac{F}{2m}$ |
| C | $\frac{F}{2m}$ | $\frac{F}{m}$ |
| D | $\frac{F}{m}$ | $\frac{F}{2m}$ |