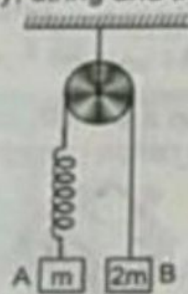


In the figure a block 'A' of mass 'm' is attached at one end of a light spring and the other end of the spring is connected to another block 'B' of mass 2m through a light string. 'A' is held and B is in static equilibrium. Now A is released. The acceleration of A just after that instant is 'a'. In the next case, B is held and A is in static equilibrium. Now when B is released, its acceleration immediately after the release is 'b'. The value of a/b is : (Pulley, string and the spring are massless)

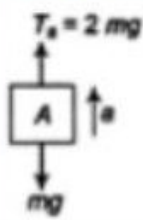


(A) 0

(B) $\frac{1}{2}$

(C) 2

(D) undefined



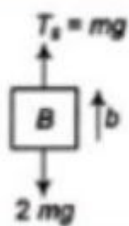
For first case tension in spring will be

$T_s = 2mg$ just after 'A' is released

$$2mg - mg = ma$$

$$\Rightarrow a = g$$

In second case $T_s = mg$



$$2mg - mg = 2mb$$

$$b = g/2$$

$$a/b = 2$$