Answer on Question #43273 – Physics – Mechanics | Kinematics | Dynamics

the total sum of work done for holding a 100kg object at a height of 2m above the floor for 20s is
A. 0
B. 100J
C. 200J
D. 2000J
E. 4000J

Solution:

Work is defined as the product of the net force acting on a body and the distance moved in the direction of the force.

$$distance = 0 \; (the \; object \; is \; motionless)$$
$$Work = force \cdot distance = 0$$

Answer: A. 0