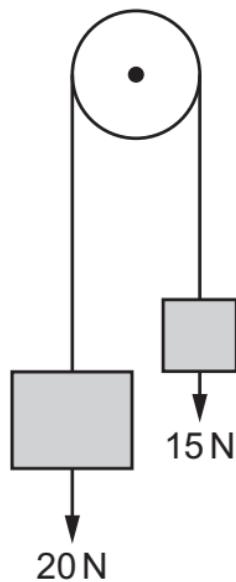


16 A pulley of radius 0.40 m supports weights of 20 N and 15 N by means of a thin string, as shown.



The weights are moved by slowly rotating the pulley clockwise through an angle of 60° .

What is the increase in the total gravitational potential energy of the weights?

A 0.33 J

B 2.0 J

C 2.1 J

D 15 J

17 A car of mass 1500 kg starts from rest and reaches a speed of 15 m s^{-1} . This acceleration will take