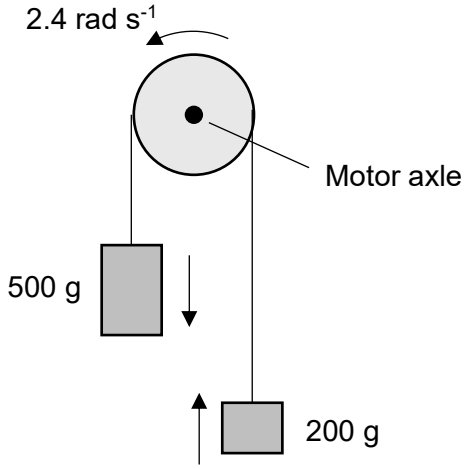
6 A 500 g mass and a 200 g mass are connected by an inextensible rope that passes over a pulley of radius 3.5 cm. The pulley is attached to the axle of a motor, which exerts a torque on the rope to lower the 500 g mass while raising the 200 g mass.

If the pulley rotates with a constant angular speed of 2.4 rad s^{-1}, what is rate of work done by the motor? Assume that there is no slipping between the rope and the pulley.



A −2.94 W **B** −0.25 W **C** 0.084 W **D** 7.1 W