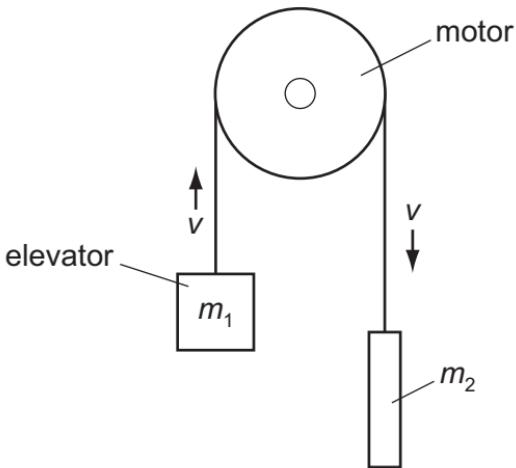


- 18 The diagram shows a lift system in which the elevator (mass m_1) is partly counterbalanced by a heavy weight (mass m_2).



At what rate does the motor provide energy to the system when the elevator is rising at a steady speed v ? (g = acceleration of free fall)

- A $\frac{1}{2} m_1 v^2$
- B $\frac{1}{2} (m_1 - m_2)v^2$
- C $m_1 g v$
- D $(m_1 - m_2)g v$

- 19 The Marianas Trench in the Pacific Ocean has a depth of about 10 km.