

Mathematics Questions by Topics

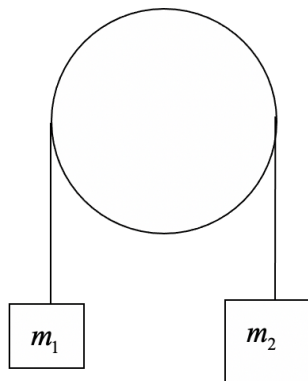
Motion and Force

Question 48

Source: K7SM2Q21

Question 48

A light inextensible string passes over a smooth pulley. Particles of masses m_1 and m_2 are attached to each end of the string as shown in the diagram.



If the mass m_2 accelerates downwards at $\frac{g}{5} \text{ m/s}^2$, then the ratio $\frac{m_2}{m_1}$ is equal to

- A. 1
- B. $\frac{3}{2}$
- C. $\frac{2}{3}$
- D. 5
- E. $\frac{5}{4}$