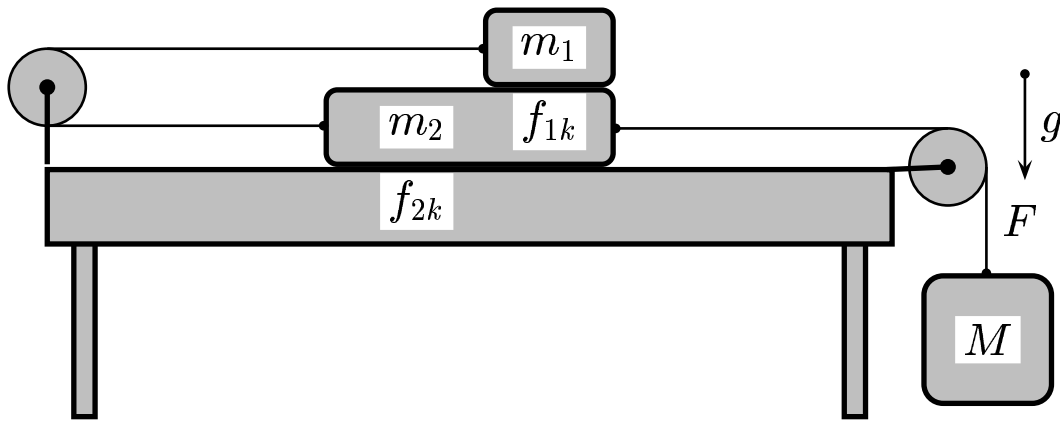


Apply a force $F = M g$ on the system of m_1 and m_2 . Let the force of friction f_{1k} and the force of friction f_{2k} .



The equations of motion are

- A) $M g - 2 f_{1k} - f_{2k} = (m_1 + m_2 + M) a$ and $f_{2k} = \mu m_2 g$.
 B) $M g - f_{1k} - f_{2k} = (m_1 + m_2 + M) a$ and $f_{2k} = \mu m_2 g$.
 C) $M g - 2 f_{1k} - f_{2k} = (m_1 + m_2 + M) a$ and $f_{2k} = \mu (m_1 + m_2) g$.
 D) $M g - f_{1k} - f_{2k} = (m_1 + m_2 + M) a$ and $f_{2k} = \mu (m_1 + m_2) g$.

$$f_{1k} = \mu m_1 g$$

$$f_{2k} = \mu (m_1 + m_2) g$$

$$f_{net} = M g - 2 f_{1k} - f_{2k} = (m_1 + m_2 + M) a$$

Answer **C**.