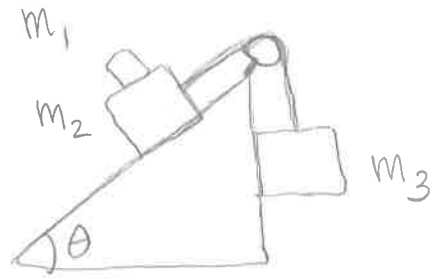


Quiz

Consider three blocks with masses m_1 , m_2 , and m_3 connected by a massless string. There is friction between blocks m_1 and m_2 but not between m_2 and the inclined plane. How many separate forces act on m_1 , m_2 , and m_3 ? (Do not break forces into components.)



	m_1	m_2	m_3
(a)	2	5	2
(b)	3	5	2
(c)	2	4	2
(d)	3	4	2
(e)	4	4	2

Quiz

If block m_3 begins moving downward and blocks m_1 and m_2 move up the ramp (angle θ) without slipping, what is the equation of motion for block m_2 along the direction of the ramp?

The coefficient of friction between 1 and 2 is μ , and the terms in parentheses refer to the friction force.

(a) $T - (m_1 a - m_1 g \sin \theta) - m_2 g \sin \theta = m_2 a$

(b) $T - (m_1 a + m_1 g \sin \theta) - m_2 g \sin \theta = m_2 a$

(c) $T - (\mu m_1 g \cos \theta) - m_2 g \sin \theta = m_2 a$

(d) $T + (\mu m_1 g \cos \theta) - m_2 g \sin \theta = m_2 a$

(e) None of above

