

Section 5: Strings and Pulleys on Incline Planes

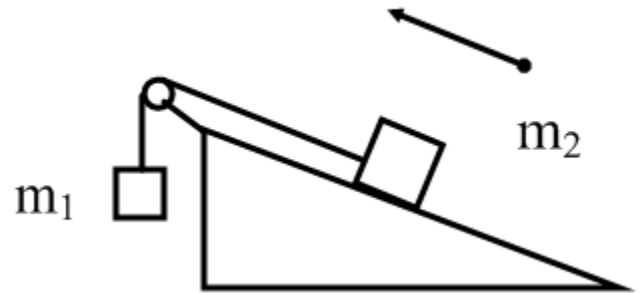
1. For the frictionless system shown, determine the acceleration of the blocks and the tension in the string.

Direction of motion: m_1 is moving down and m_2 is moving up the plane.

$$m_1 = 2.0 \text{ kg}$$

$$m_2 = 3.0 \text{ kg}$$

$$\theta = 30.0$$



2. For the system shown, determine the acceleration of the blocks and the tension in the string.

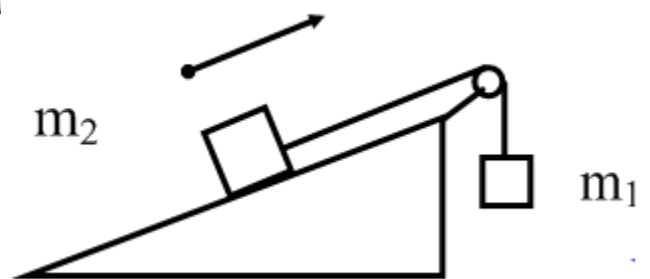
Direction of motion: m_1 is moving down and m_2 is moving up the plane.

$$m_1 = 2.0 \text{ kg}$$

$$m_2 = 3.0 \text{ kg}$$

$$\theta = 30.0$$

$$\mu = 0.15$$



3. For the system shown, determine the acceleration of the blocks and the tension in the string.

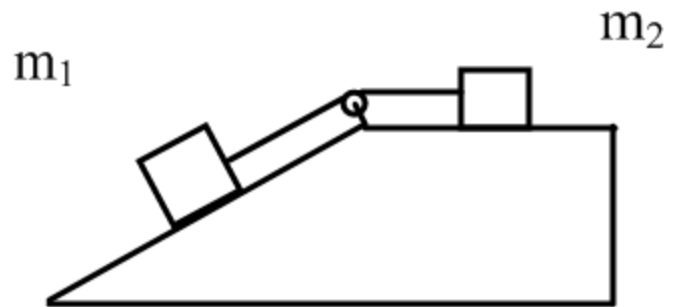
Direction of motion: m_1 is moving down and m_2 is moving left.

$$m_1 = 45 \text{ kg}$$

$$m_2 = 35 \text{ kg}$$

$$\theta = 40.0$$

$$\mu = 0.20$$



Questions: 1(b) p. 202
11 (a) and (b) for diagram C, p. 225