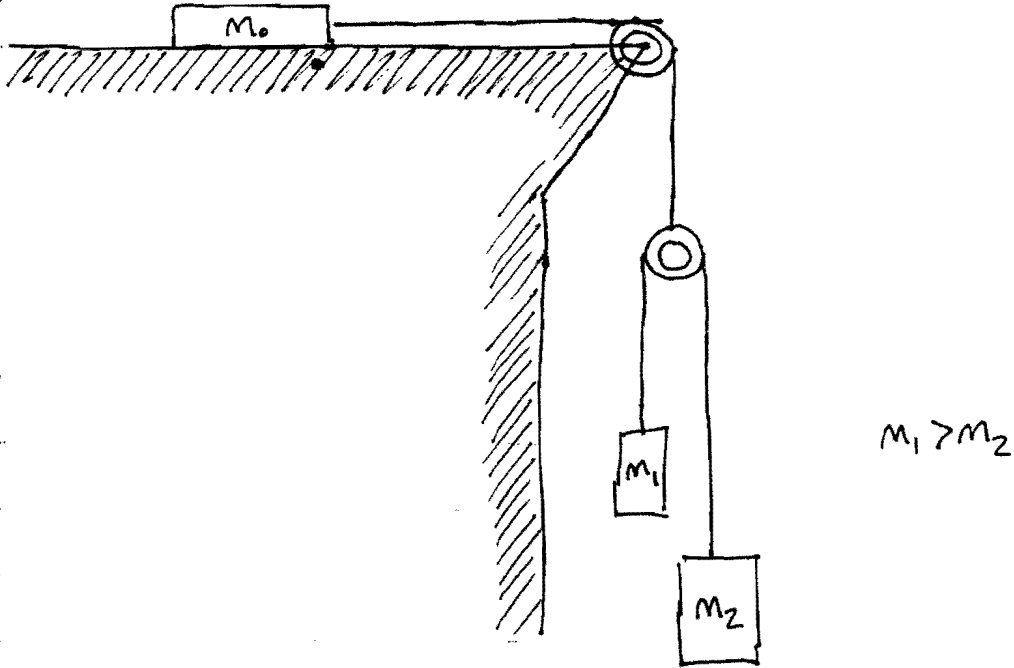


①

Dis 6A 8.1

1.73)



$$\sum F_0 = F = m_0 w_0$$

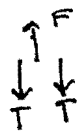
$$\sum F_1 = m_1 g - T - m_1 w_0 = m_1 w_1$$

$$\sum F_2 = T - m_2 g + m_2 w_0 = m_2 w_2$$

$$w_1 = w_2 = w'$$

$$m_1 g - m_1 w_0 - m_1 w_1 = m_2 w_2 + m_2 g - m_2 w_0$$

$$\frac{(m_1 - m_2)(g - w_0)}{(m_1 + m_2)} = w'$$



$$F = 2T$$

$$T = m_2 \left[\frac{(m_1 - m_2)(g - w_0)}{m_1 + m_2} + g - w_0 \right]$$

$$F = \frac{4m_1 m_2}{m_1 + m_2} (g - w_0)$$

1.73) Dis 6A 8.2

(2)

$$m_0 w_0 = 4m_1 m_2 (g - w_0) / (m_1 + m_2)$$
$$(m_0(m_1 + m_2) + 4m_1 m_2) w_0 = 4m_1 m_2 g$$

$$w = w_0 + w'$$

$$= \frac{4m_1 m_2}{4m_1 m_2 + m_0(m_1 + m_2)} g + \frac{m_1 - m_2}{m_1 + m_2} g - \frac{(m_1 - m_2)}{m_1 + m_2} w_0$$

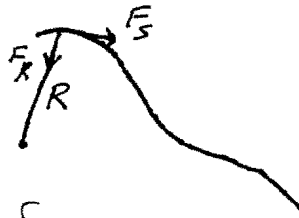
$$= \frac{1}{4m_1 m_2 + m_0(m_1 + m_2)} \left[4m_1 m_2 g + \frac{(m_1 - m_2)(4m_1 m_2 + m_0(m_1 + m_2))}{m_1 + m_2} g - \frac{(m_1 - m_2)}{m_1 + m_2} 4m_1 m_2 g \right]$$

$$= \frac{g}{4m_1 m_2 + m_0(m_1 + m_2)} \left[\frac{4m_1^2 m_2 + 4m_1 m_2^2 + m_0(m_1 - m_2)(m_1 + m_2)}{m_1 + m_2} \right]$$

$$w = \frac{4m_1 m_2 + m_0(m_1 - m_2)}{4m_1 m_2 + m_0(m_1 + m_2)} g$$

1.119) Dis GA 8.3
 $v = a\sqrt{s}$

F_S, F_R



$$\int F_R ds = 0$$

$$\int F_S ds = \frac{1}{2} mv^2 = \frac{1}{2} ma^2 s$$

$$\frac{ds}{dt} = a\sqrt{s}$$

$$\int \frac{ds}{\sqrt{s}} = at = 2\sqrt{s} = at$$

$$s = \left(\frac{at}{2}\right)^2$$

$$\int F_S ds = W = \frac{1}{2} ma^2 \frac{a^2 t^2}{4}$$

$$\underline{W = \frac{1}{8} ma^4 t^2}$$