

13左
 (1) $\uparrow$ 3m 1m $\uparrow$ $F_{兄}$
 $\downarrow$ 100kgw
 $\downarrow$ 100kgw
 $\therefore$ 靜力平衡
 $\textcircled{1}$ 合力 = 0
 $F_{支} + F_{兄} = 100\text{kgw} - (a)$
 $\uparrow \quad \uparrow \quad (\downarrow)$
 $\textcircled{2}$ 合力矩 = 0
 $L_{順} = L_{逆}$
 $W \times 3 = F_{兄} \times 4$
 $25 \times 100 \times 3 = F_{兄} \times 4$
 kgw
 $F_{兄} = 75\text{kgw}$
 代入 a
 $F_{支} = 100 - 75$
 $= 25\text{kgw}$

自我練習

$\textcircled{1} V = m \cdot g \cdot h$
 $= mg \cdot \frac{1}{2}gt = \frac{1}{2}mg^2t^2$
 $\textcircled{2} E_k = \frac{1}{2}mV^2$

靜力平衡... 轉動
 $L = F \times d$

- $\textcircled{1}$ 移動平衡 $\rightarrow$ 合力 = 0
- $\textcircled{2}$ 轉動平衡 $\rightarrow$ 合力矩 = 0

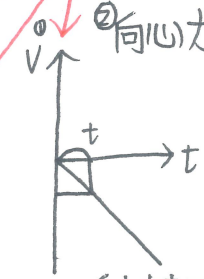
N·m
 功的類型
 $W = F \times S (\text{J})$

$(N) \cdot (m) = J$

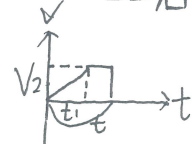
$F = m \cdot a (N)$

$V = \frac{\Delta x}{\Delta t} \text{ m/s}$

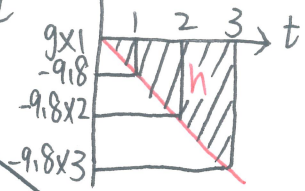
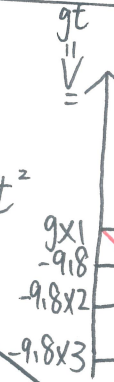
$a = \frac{\Delta V}{\Delta t} \text{ m/s}^2$



自由落體



- $\textcircled{1} 0 \sim t_1 : a = ?$
- $\textcircled{2} F = ?$
- $\textcircled{3} W = ?$
- $\textcircled{4} P = ?$



$h = \frac{1}{2}tgt$
 $= \frac{1}{2}gt^2$

力矩轉動的難易程度

$L = F \times d$

N·m (N) 力臂

- $\textcircled{1}$ 找支點
- $\textcircled{2}$ 力的延長線
- $\textcircled{3}$ 支點到力的延長線間的垂直距離

83

$|ca| = 4.2J$