

## Atwood's Machine

- Preliminary Questions
- Data/Observations
  - sample graph (v-t with slope / i.d.)
  - data tables
- Analysis
  - 1 + 2 → show a sample calc
  3. a vs  $\Delta m \Rightarrow$  graph; state the prop.
  4. a vs  $m_T \Rightarrow$  graph; state the prop.
  5. general expression for a in terms of  $\Delta m$  and  $m_T$ 
    - combine prop
    - find k (use excel, insert table + show sample calc)
    - write specific eq

$$\underline{\Delta m} \quad \underline{m_T} \quad \underline{a} \quad \underline{k}$$

## • Extensions

1. Use your FBD to develop a general expression for a ( $m_2 > m_1$ )
2. Calc the theoretical acc for each trial (in excel) ← show sample calc  
Calc the % error for each trial (in excel) ← show sample calc.
3. Unknown mass (use the equation from 5)