

KIRCHHOFF'S VOLTAGE LAW

SAYS → AROUND ANY CLOSED
CIRCUIT ALL THE VOLTAGE
CHANGES MUST ADD UP TO ZERO.

$$+1.5V - I_2 R_2 - I_3 R_3 = 0$$

$$1.5 - (.3)(2) - (.3)(3) = 0$$

$$1.5 - .6 - .9 = 0$$

$$V = IR$$

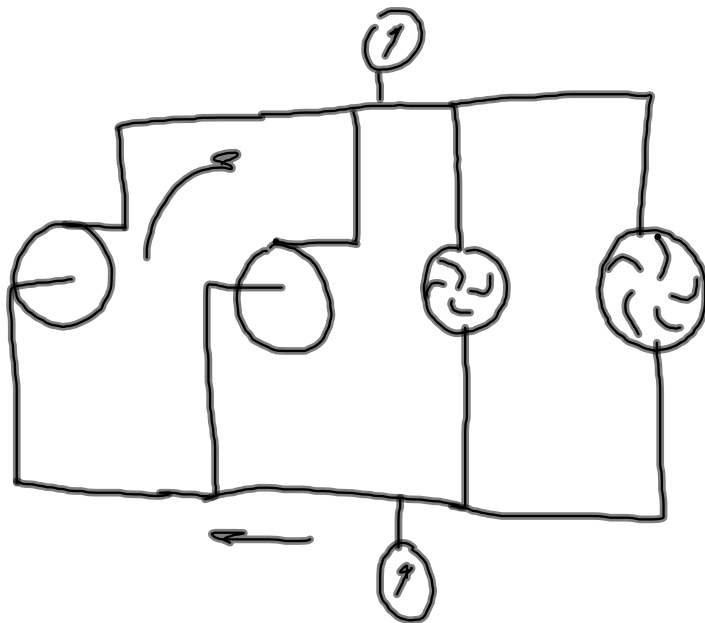
$$1.5V = I(5\Omega)$$

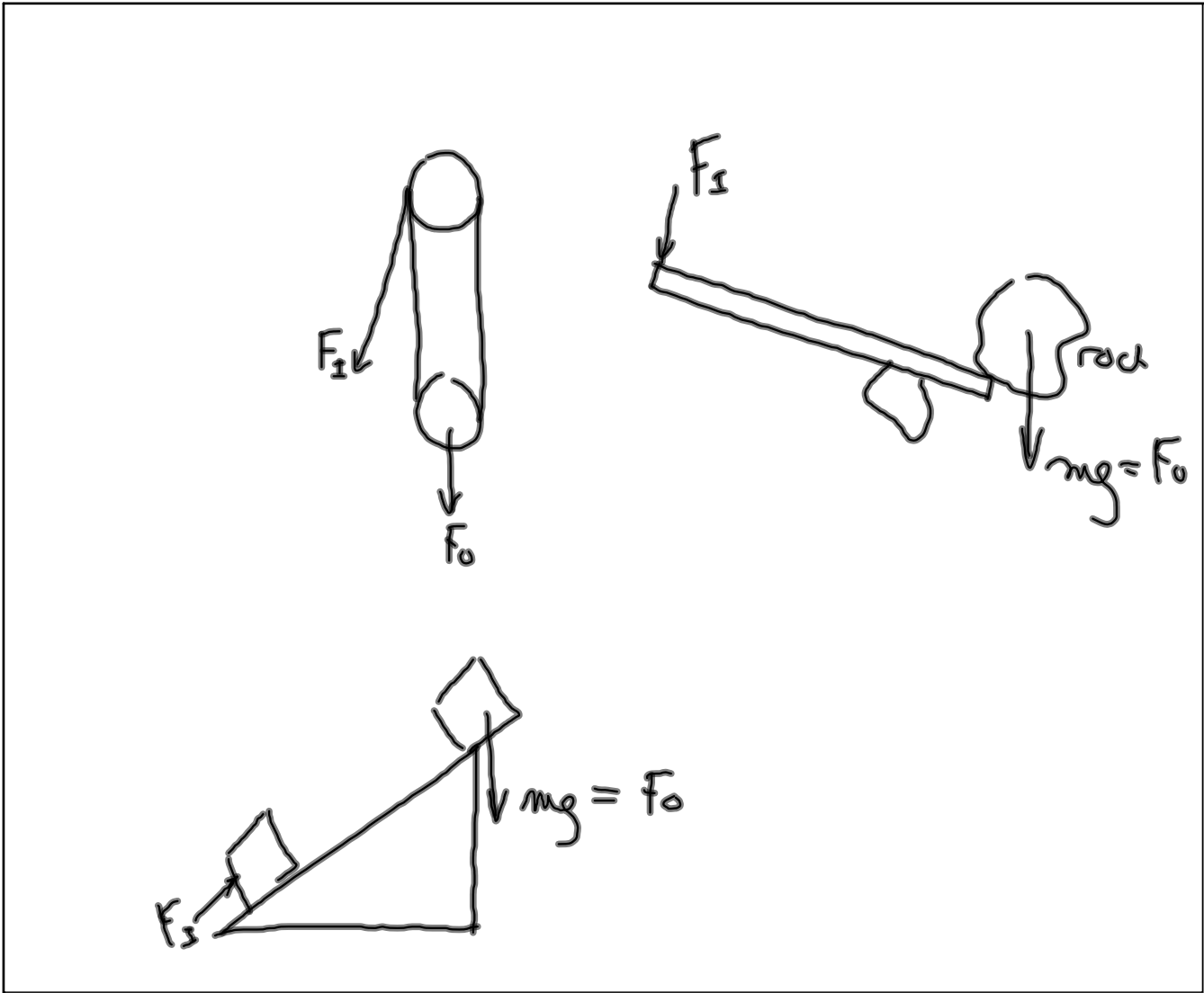
$$I = 0.3 \text{ A}$$

$$= 0.3 \frac{\text{Coulombs}}{\text{s}}$$

$$= 0.3 \text{ C/s}$$

pump model challenge





LAB 4. | Review

SIMPLE MACHINE LAB - SIMPLE MACHINES ARE COMPOSED OF SIMPLE MECHANICAL COMPONENTS WHICH HELP ONE DO WORK (USUALLY) BY LOWERING IN THE INPUT FORCE REQUIRED TO DO A JOB.

DOES NOT CHANGE THE AMOUNT OF WORK DONE.

$$M.A. = \frac{F_o}{F_I} \left\{ \begin{array}{l} \text{Mechanical} \\ \text{advantage} \\ \text{for any} \\ \text{Simple machine.} \end{array} \right. \quad \text{POWER} \rightarrow \frac{\text{Work}}{\Delta t}$$

$$\text{for a Lever} = M.A. = \frac{L_I}{L_o}$$

" " pulley = } THE NUMBER OF SUPPORTING CABLES ATTACHED TO LOAD.


$$\left. \right\} \text{INCLINED PLANE} \rightarrow M.A. \sim \frac{1}{\theta} = \frac{1}{\sin \theta}$$