

## Time and Work

$$\rightarrow M_1 \times D_1 = M_2 \times D_2$$

$$\rightarrow M_1 \times D_1 \times H_1 = M_2 \times D_2 \times H_2$$

$$\rightarrow M_1 \times D_1 \times W_2 = M_2 \times D_2 \times W_1$$

$$\Rightarrow \frac{M_1 \times D_1}{M_2 \times D_2} = \frac{W_1}{W_2}$$

$$\rightarrow M_1 \times D_1 \times H_1 \times W_2 = M_2 \times D_2 \times H_2 \times W_1$$

$$\Rightarrow \frac{M_1 \times D_1 \times H_1}{M_2 \times D_2 \times H_2} = \frac{W_1}{W_2}$$

$$\rightarrow E \propto \frac{1}{T}$$

$$\rightarrow T \propto \frac{1}{E}$$

$$\boxed{\frac{E_1}{E_2} = \frac{T_2}{T_1}}$$

$$\checkmark \boxed{\text{Total Work} = \text{Equal}}$$