

CP - NOV 1

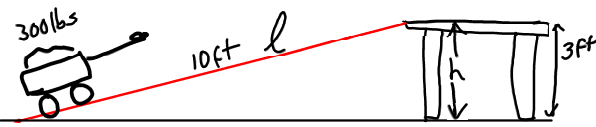
Lever $IMA = \frac{\text{Effort Arm}}{\text{Resistance arm}}$

Wheel + Axle $IMA = \frac{\text{Diameter of what you turned}}{\text{Diameter of what got turned}}$

Inclined Plane (ramp)
Plane - shape

Wedge

Inclined Plane



300lbs
10ft l
3ft

Too much to lift ... use a ramp

$IMA_{\text{ramp}} = \frac{\text{length of Ramp}}{\text{height}} = \frac{10\text{ft}}{3\text{ft}} = 3\frac{1}{3}$

Effort force $\times IMA = \text{Resistance}$

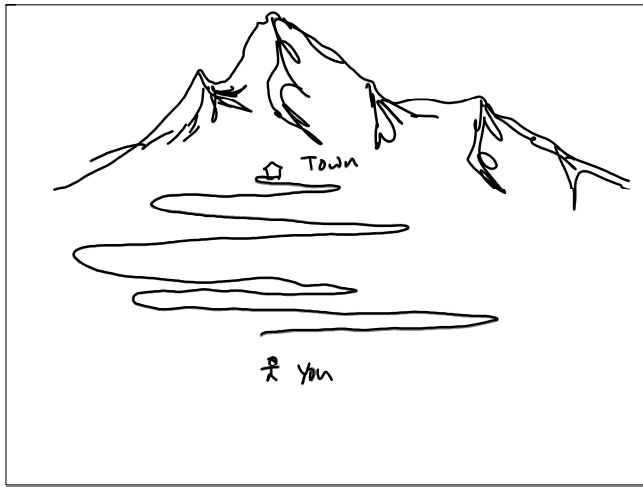
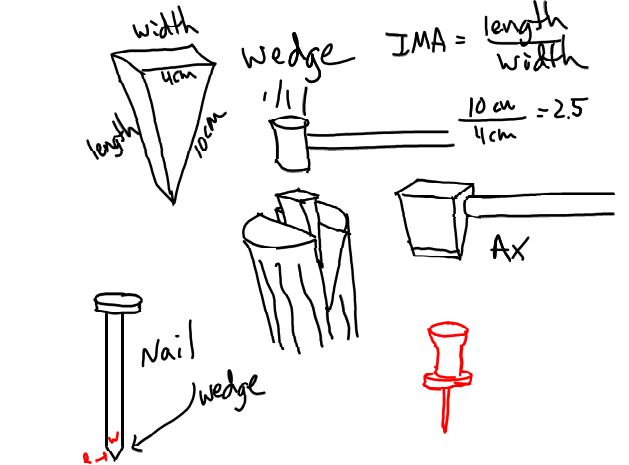
$Ef \times 3.33 = 300\text{ lb}$

$= \frac{300\text{ lb}}{3.33333}$

$Ef = 90.9\text{ lbs}$

$90.9\text{ lbs} \times 10\text{ft} = 909\text{ ft}\cdot\text{lbs}$

$300\text{ lbs} \times 3\text{ft} = 900\text{ ft}\cdot\text{lbs}$

width
4cm
length
10cm

Wedge $IMA = \frac{\text{length}}{\text{width}}$

$\frac{10\text{ cm}}{4\text{ cm}} = 2.5$

Ax

Nail
wedge

