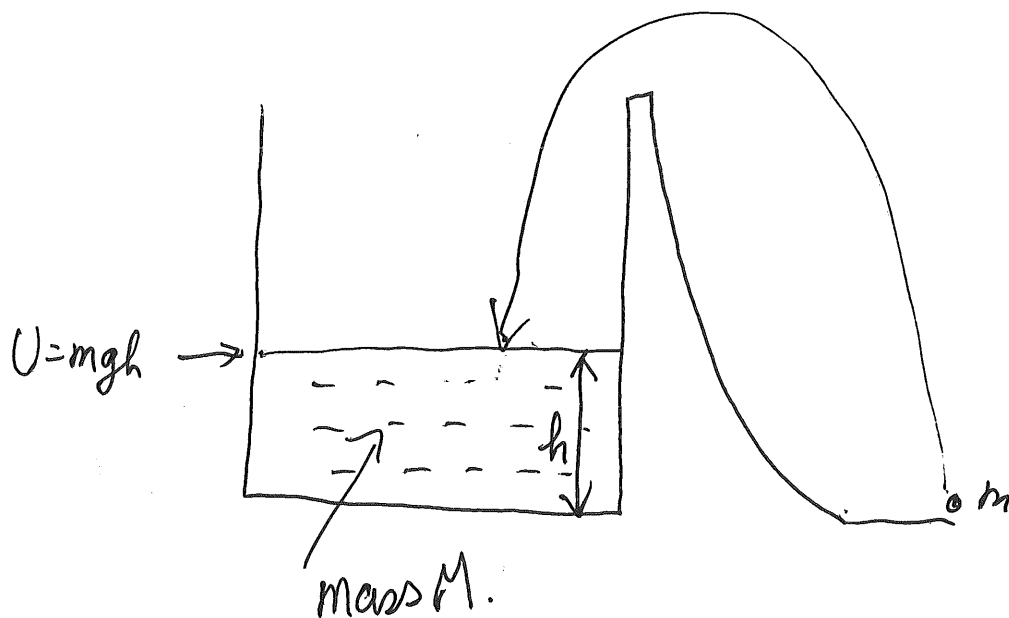
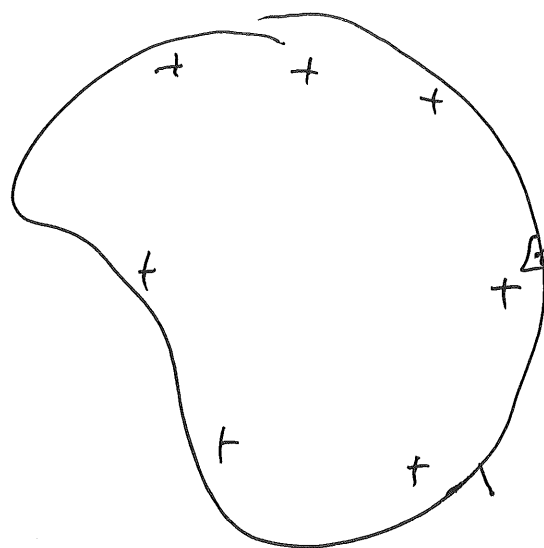




- 1). Water level will rise as ~~po~~ we put water in.
- 2). We need ~~to~~ to pay more energy to store water as the water level rise.

Capacitance of reservoir = $\frac{M}{h} \leftarrow h \propto U \text{ at water level.}$





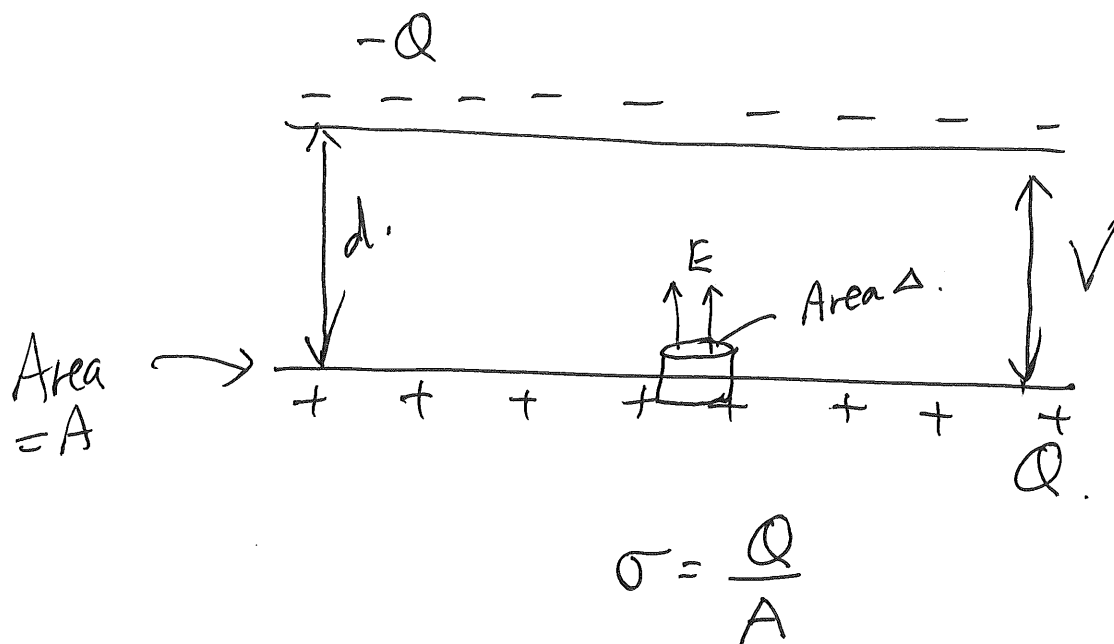
put ⁺ charges
into a
conductor.

potential of
conductor will
rise.

$$C = \frac{Q}{V}$$

$$F \equiv \frac{C}{V} \equiv \frac{C}{J/C} \equiv \frac{C^2}{J}$$

$$\equiv C^2 \text{ kg m}^2 \text{ s}^{-2}$$



$$\epsilon_0 E \Delta = \sigma \Delta$$

$$\Rightarrow E = \frac{\sigma}{\epsilon_0}$$

$$V = Ed = \frac{d\sigma}{\epsilon_0}$$

$$C = \frac{Q}{V} = \frac{Q}{d\sigma/\epsilon_0} = \frac{\epsilon_0 Q}{d(\frac{Q}{A})}$$

$\nwarrow \sigma$

$$= \frac{\epsilon_0 A}{d}$$