

PRINCIPI DI NEWTON

I. INERZIA

II. $\sum_{i=1}^n \vec{F}_i = m \vec{a}$

III. AZIONE
E REAZIONE

* PUNTI MATERIALI

↳ PROBLEMA GENERALE

DATA $\sum_{i=1}^n \vec{F}_i \rightarrow \vec{a}$

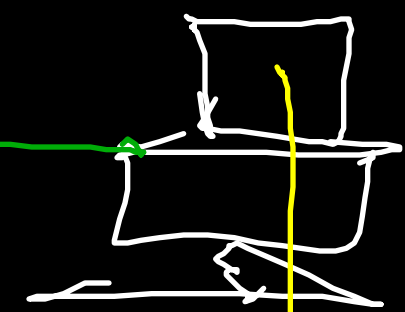
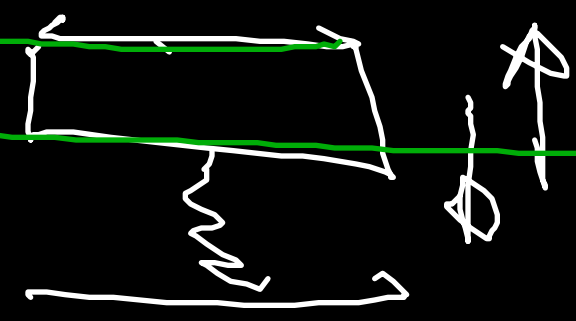
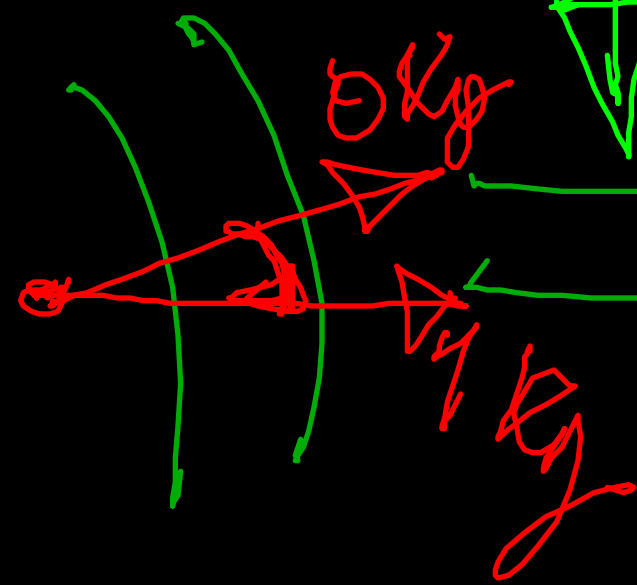
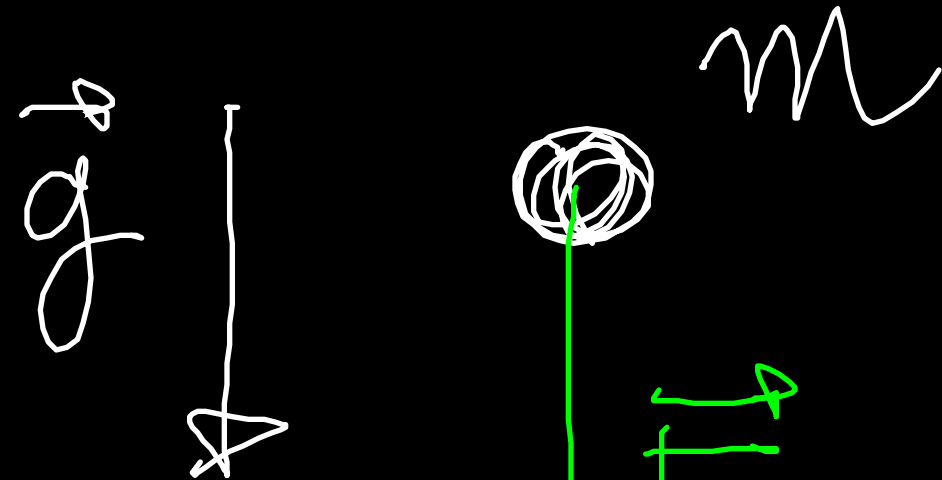
\vec{F}_R

- 1) INDIVIDUARE LE \vec{F}_i
- 2) "COSTRUIRE" $\vec{F}_R = m \vec{a}$
- 3) RICAVARE \vec{a}
DALLE EQ.

→ MODELLI
MACROSCOPICI
DI FORZE

FORZA PESO

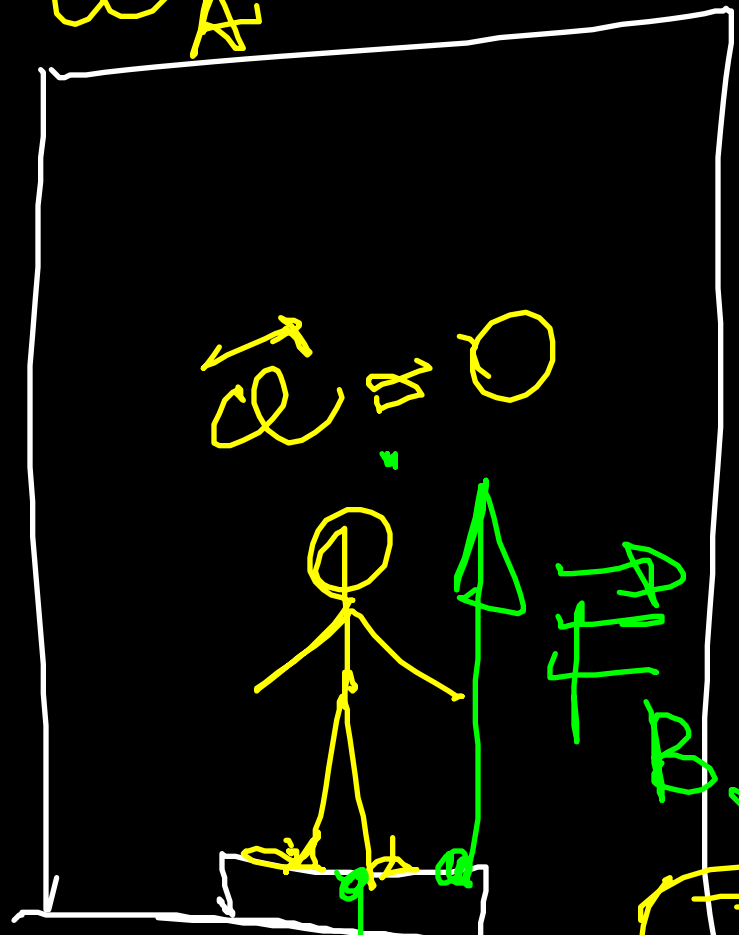
$$F = mg$$



1 kg

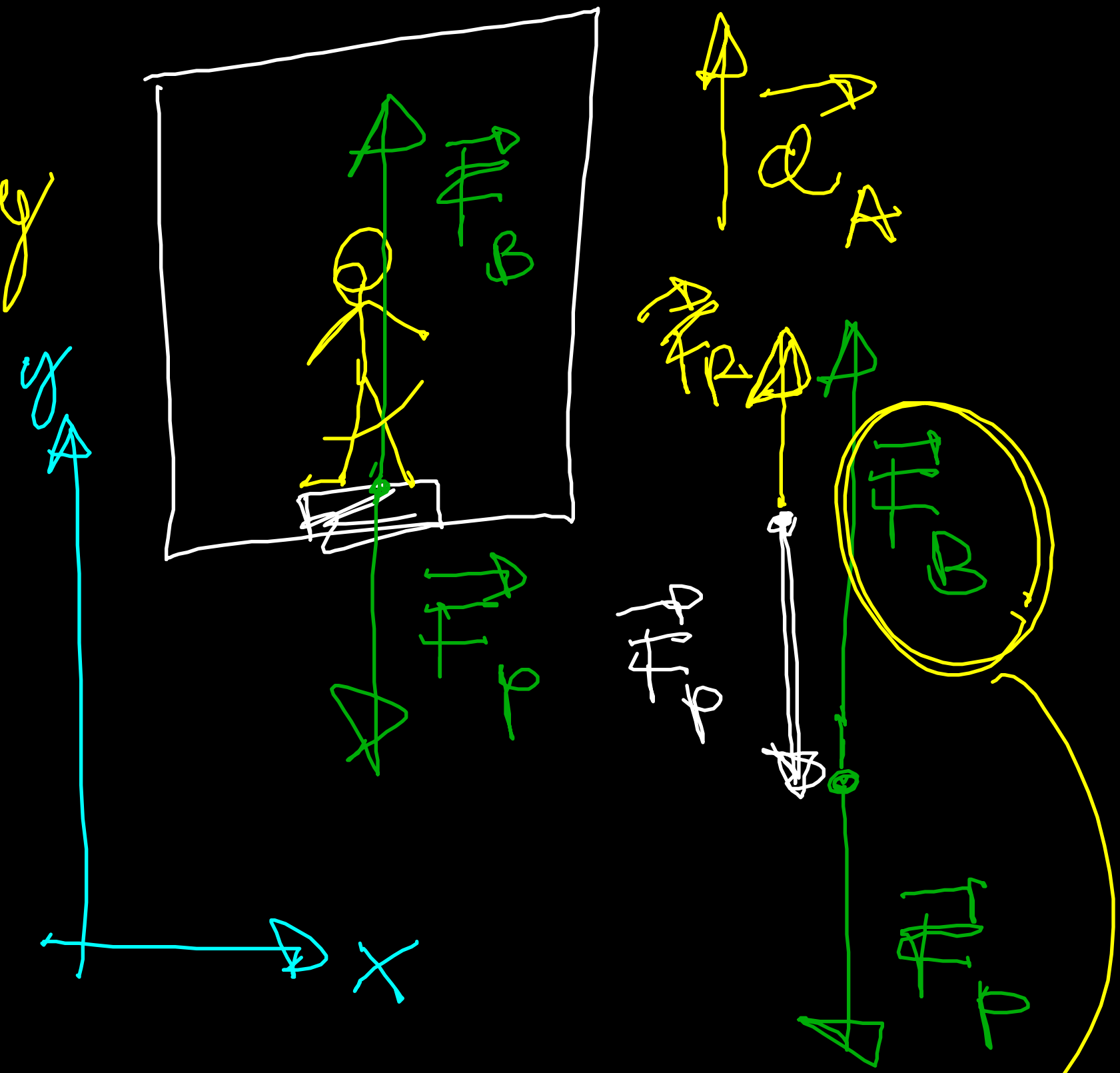
$$F_{1kg} = 1 \cdot 9,81 \frac{m}{s^2} = 9,81 N$$

$a_A = 0$



$$m = \frac{|F_p|}{|g|} = 66 kg$$

$$m = 66 \text{ kg}$$



PESO
APPARENTE

$$m \vec{a}_A = \vec{F}_R \Rightarrow \vec{F}_B \Rightarrow \vec{F}_P \Rightarrow m a_y = F_{By} - F_{Py}$$

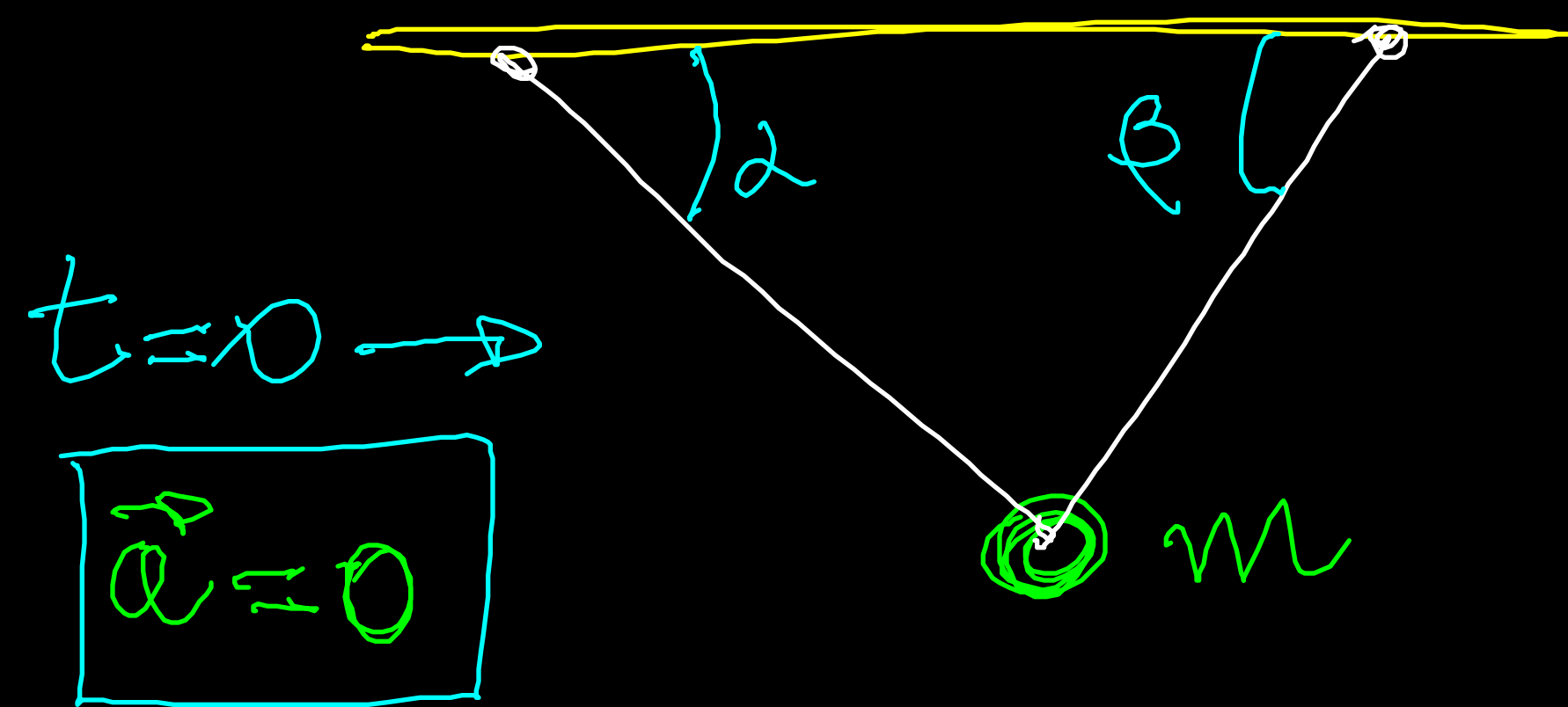
$$|\vec{F}_B| = 733 \text{ N}$$

$$|\vec{F}_P| = 651 \text{ N}$$

$$82 \text{ N}$$

$$a_y = a_A = \frac{82 \text{ N}}{66 \text{ kg}} = 1.2 \text{ m/s}^2$$

$$\frac{a_A}{g} = \frac{1.2}{9.8} \approx 0.1$$



- i) Schizzo "QUANTITATIVO"
- ii) FORZE \rightarrow DIAGRAMMA DI CORPO LIBERO
- iii) COSTR. $\vec{F} = m \vec{Q} \rightarrow$ EQ. (AZIONI)
- iv) SOL. DELLE EQ \rightarrow RISULTATO
- v) ANALISI CRITICA

