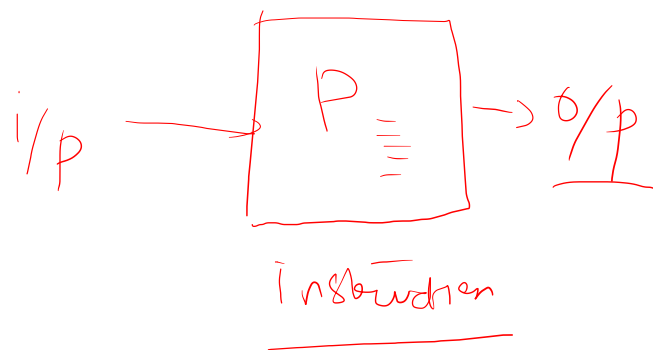


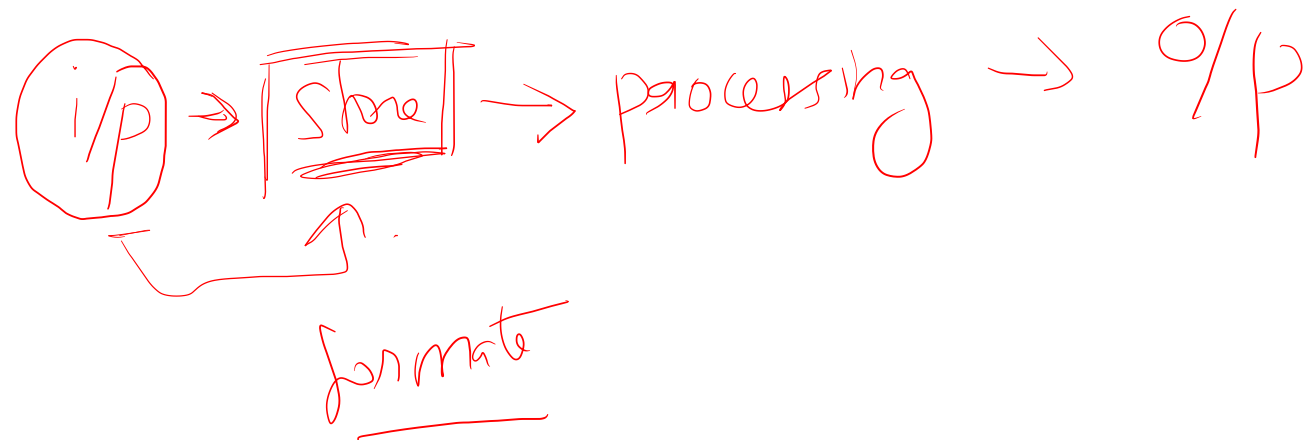
Python  
↳ Scripting

Python  $\begin{cases} \text{python 2} \leftarrow \underline{2010} \quad \times \\ \text{python 3} \rightarrow \text{After 2010} \end{cases}$

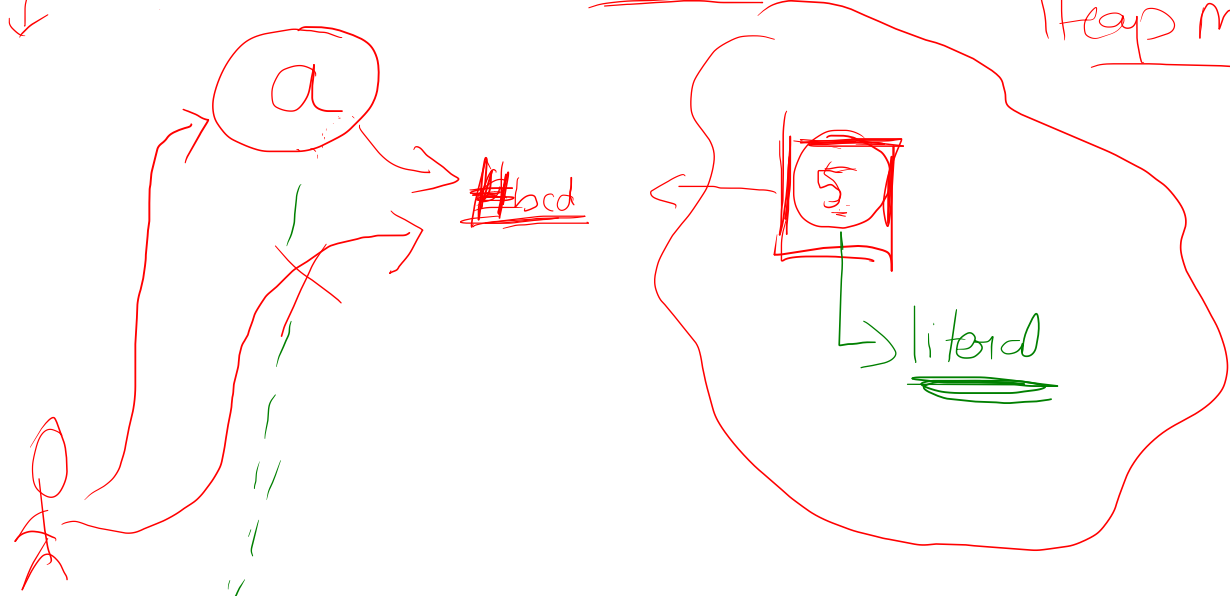


↳ 3.8, 3.7, 3.6

Three sub component in program / template

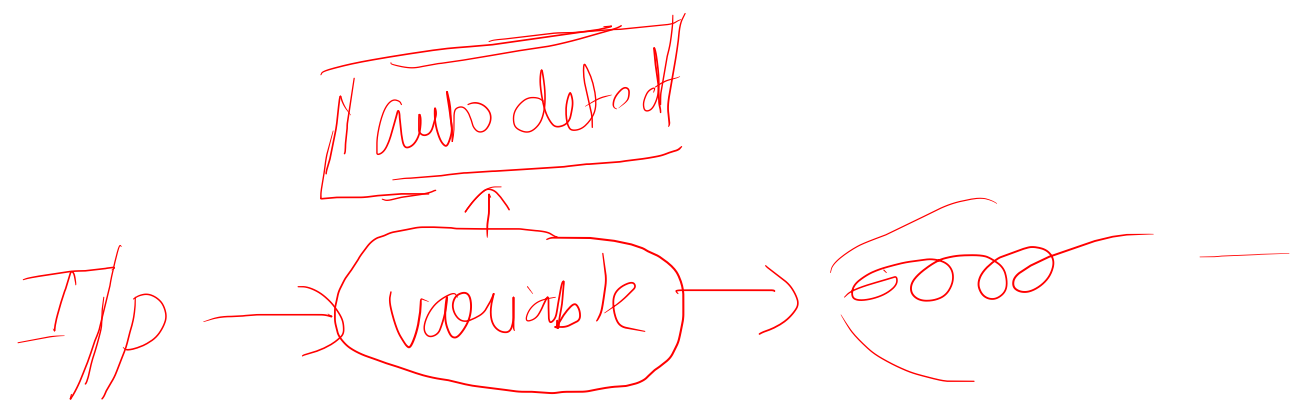


(5) Hb  
 Python  
 Heap memory  
 i phone used → 16GB  
 Sam → 1612  
 Shro → 50mp

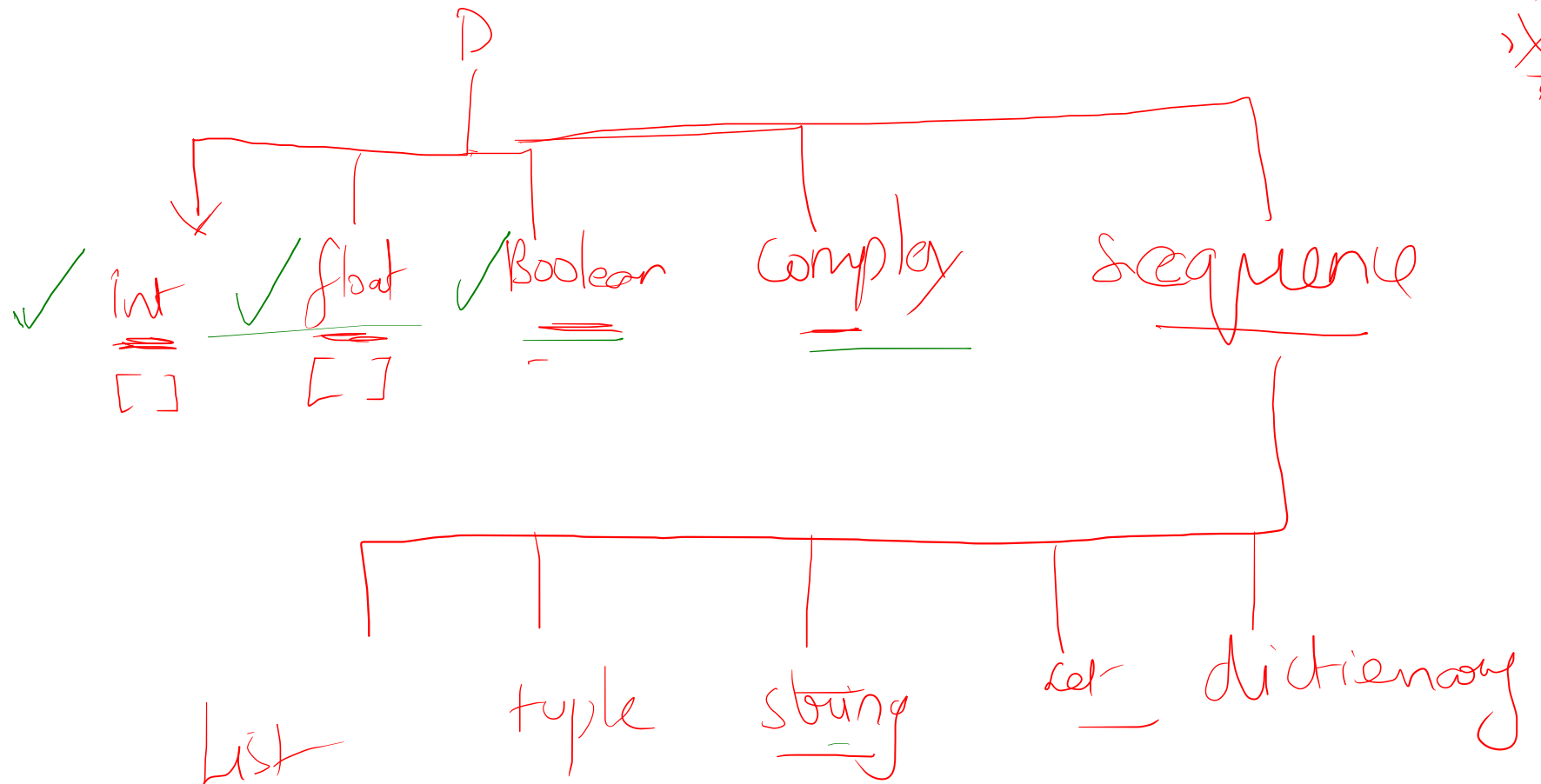


in a  
 int a  
 int b

Variable (or) Identifier



$\downarrow$  data  
 $a = \underline{5} \leftarrow \text{typ}$   
 $a = \underline{00000}$   
 $a = \underline{'b'} \leftarrow \text{char}$   
 $a = \underline{3+1j} \leftarrow \omega$   
 $a = \underline{\text{True}}$



$\frac{10}{2} = 5$   
 $\frac{10}{2} = 5$

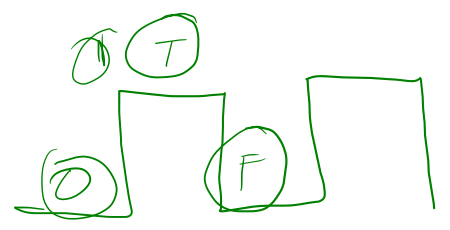
$a = \underline{1} \rightarrow \text{int}$   
 $a = \underline{10.5} \rightarrow \text{float}$

$[10.000000000000001]$

precision

$\{ \}$   $\rightarrow \text{True}$   
 $\{ \}$   $\rightarrow \text{True}$

$[0] \rightarrow \text{False}$   
 $in \rightarrow \text{Bool}$



code mode of cell  
↓

Comment

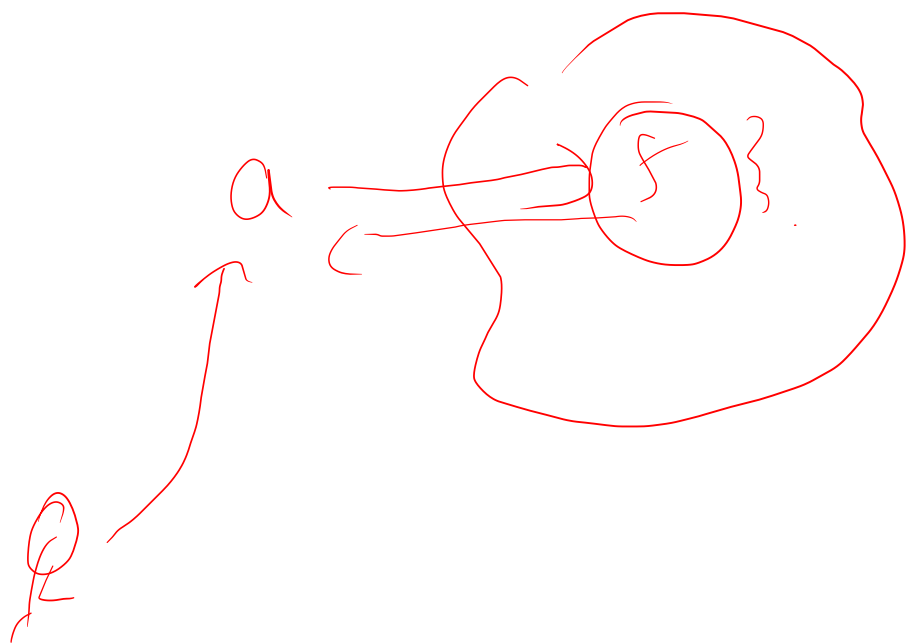
skipped by  
Python  
Int

→ line comment → #

→ doc strings / multiline comment

'''  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

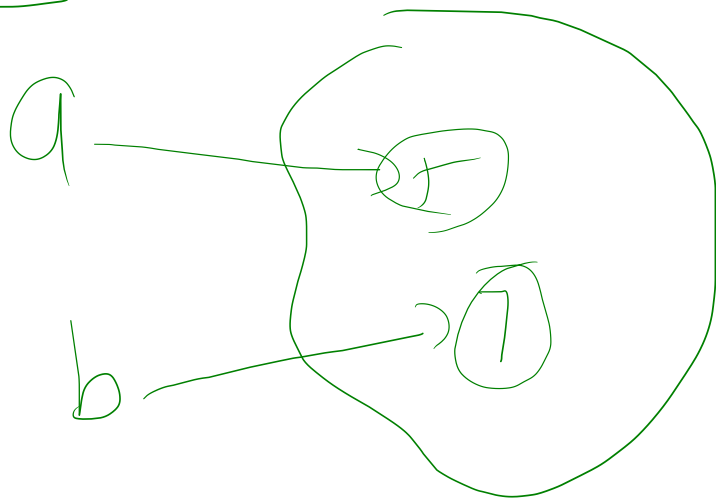
\_\_\_\_\_  
'''



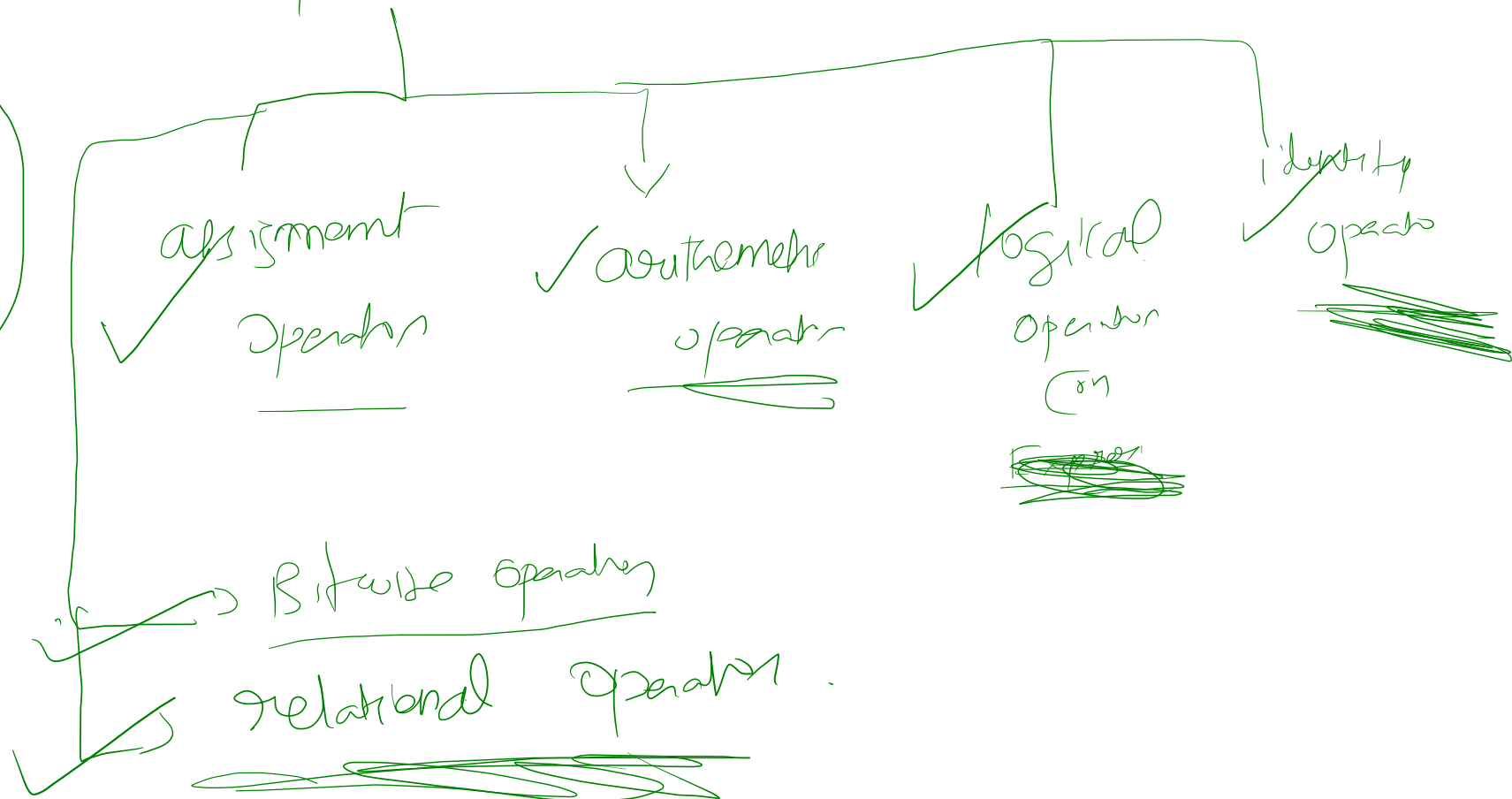
float → ~~a = 100~~ (int) ×  
rule a = float(100) → (float)

type conversion

Keyword  $\Rightarrow$



Operator.



Operator / Expression

$a \text{ isb}$   
 $\rightarrow T / F$

$Q \rightarrow Q^{\text{Shift}}$   
0011  $\Rightarrow$

$\neq$   
 $=$   
 $>$   
 $<$   
 $\geq$   
 $\leq$

$$(a = b) \text{ ~~and~~ } (b = 3)$$

$$a = 8$$

$$b = 7$$

$$\uparrow \quad \quad \uparrow$$

$$a == b$$

$\downarrow$   
Boolean

$\begin{matrix} T \\ F \end{matrix}$

$$a = 3$$

$$b = 3$$

$$c = 4$$

(or)

$$\frac{(a == b)}{T} \quad | \quad \frac{(b > c)}{F}$$

$$\downarrow$$

$$T$$

Any one  
False is false

8 - and

11 → (✓)

^

any ~~one~~ True

↓

True

$$\textcircled{5} + \textcircled{6} \xrightarrow{\text{operand}} \text{operand}$$

operand

↑

1 item  
for  
data

↓  
→ 11 → int

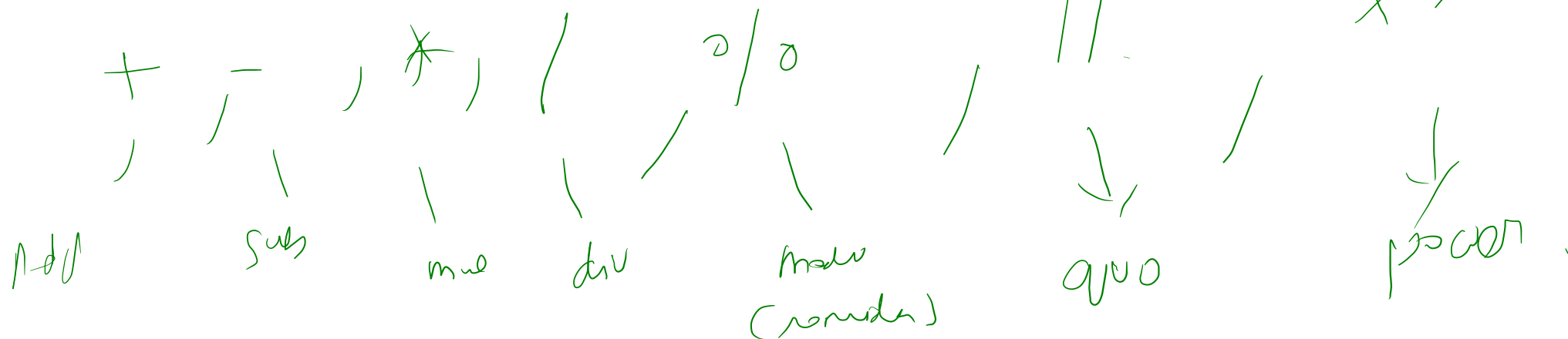
$$\frac{11 \text{ (low)}}{5} + \frac{6.5 \text{ (high)}}{1}$$

$$\downarrow$$

$$\textcircled{11.5}$$

→ float

Arithmetic  
operation





Expression

L →

$$\left( (3+4) * (5*6) \right) + (3/6)$$

~~PENDAS~~

⊕

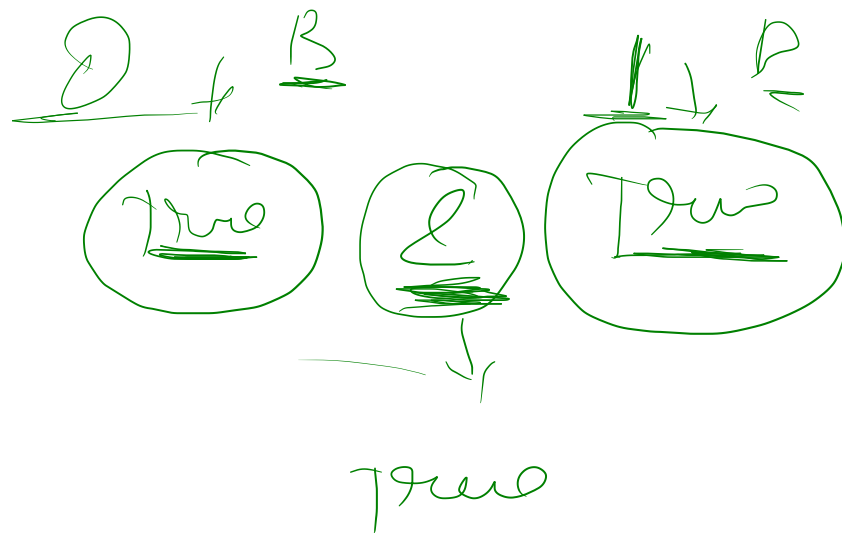
PENDAS

$$a' = \underline{a+b} \rightarrow$$

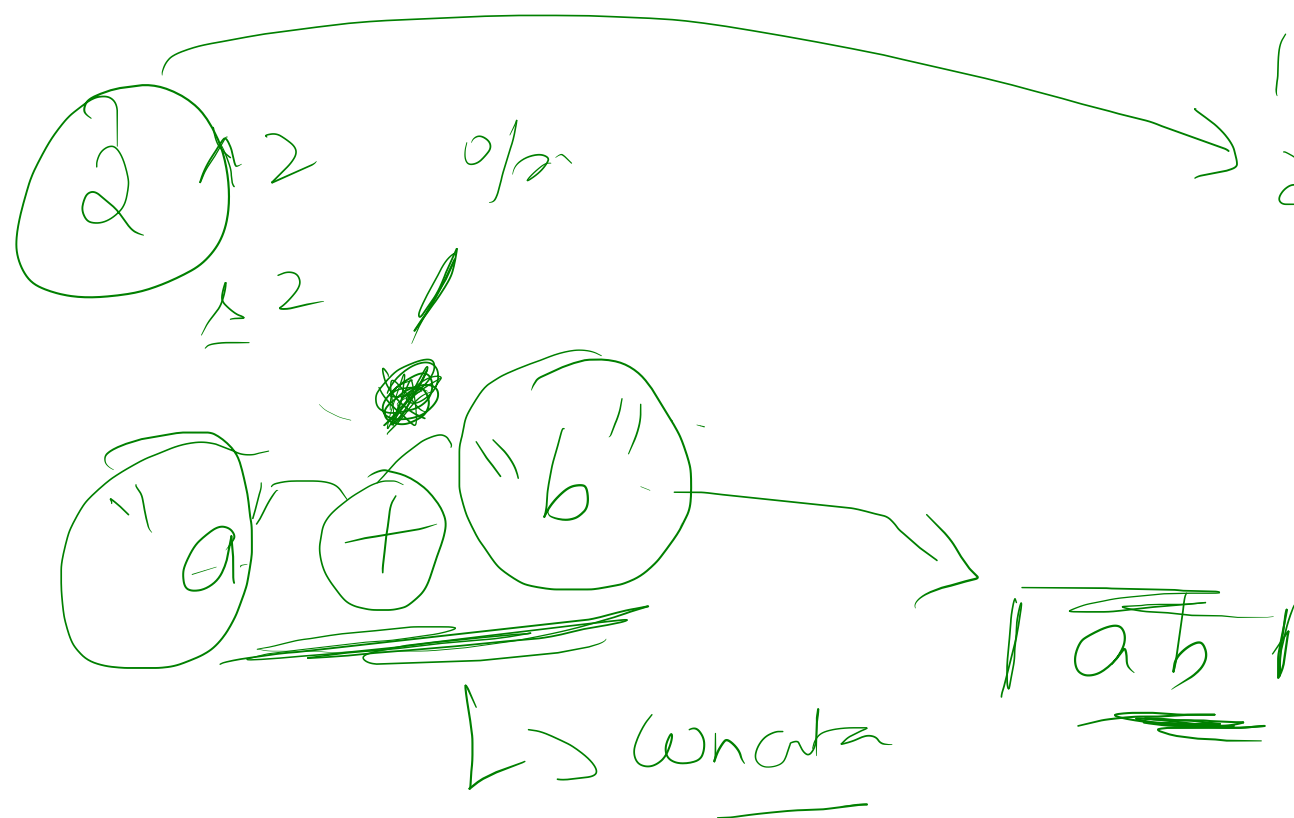
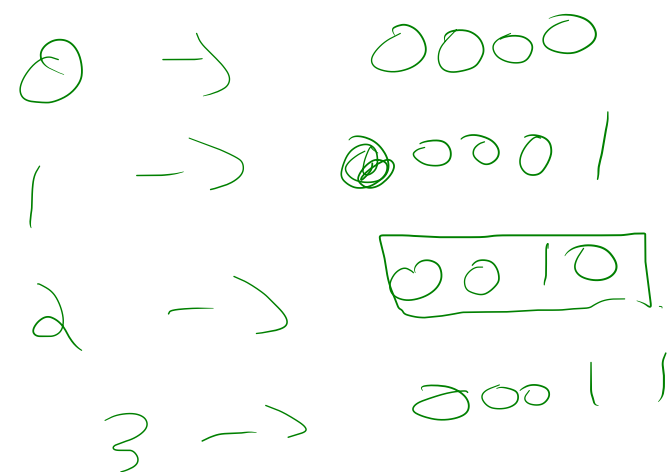
$$a + = b$$

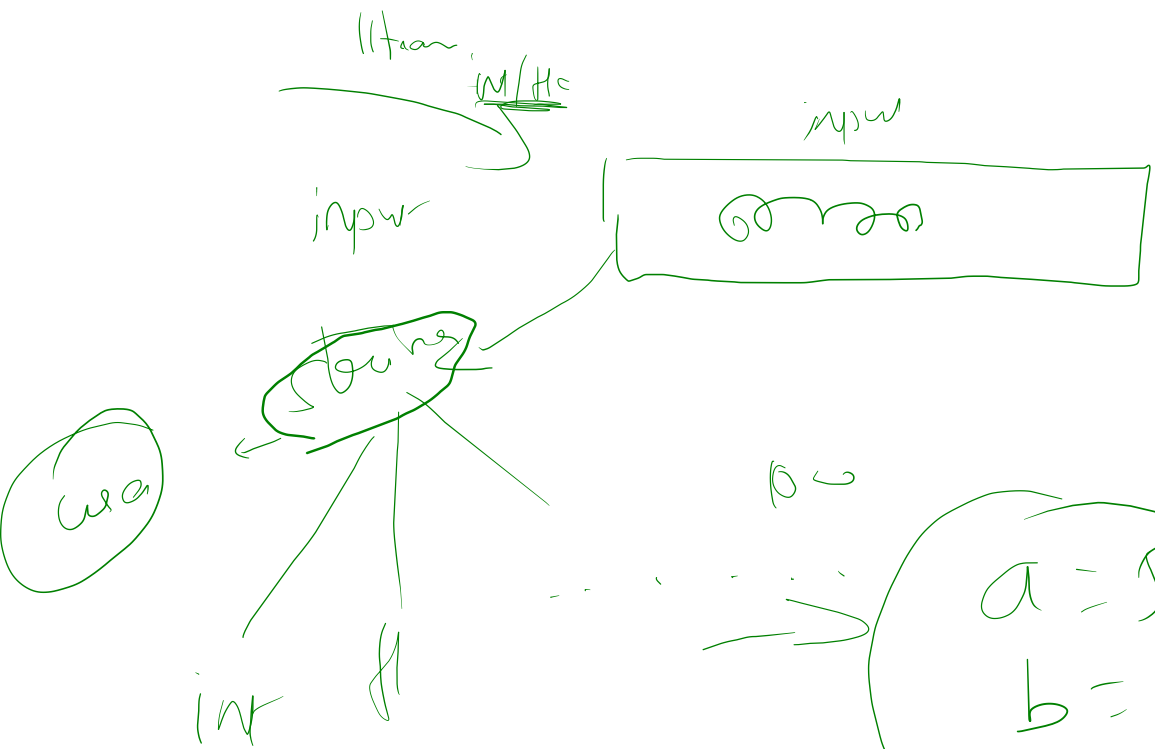
↓, ↓

$$a = a+b$$



logical





$$\begin{matrix} \text{int} \\ \text{int} \end{matrix} \rightarrow \text{S cannot} \rightarrow \text{int}$$

$$\begin{matrix} a + b & \rightarrow \\ a = & - \\ b = & - \\ \text{int} & - \\ \text{int} & - \end{matrix}$$

$$x = 5$$

$$y = 11$$

~~2~~

$$\begin{aligned} \underline{x} &= x + y \\ x + &= y \end{aligned} \quad \left. \vphantom{\begin{aligned} \underline{x} &= x + y \\ x + &= y \end{aligned}} \right\}$$

