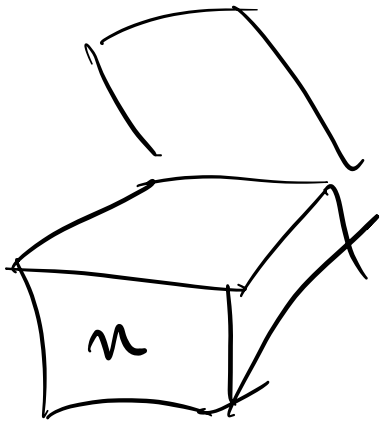
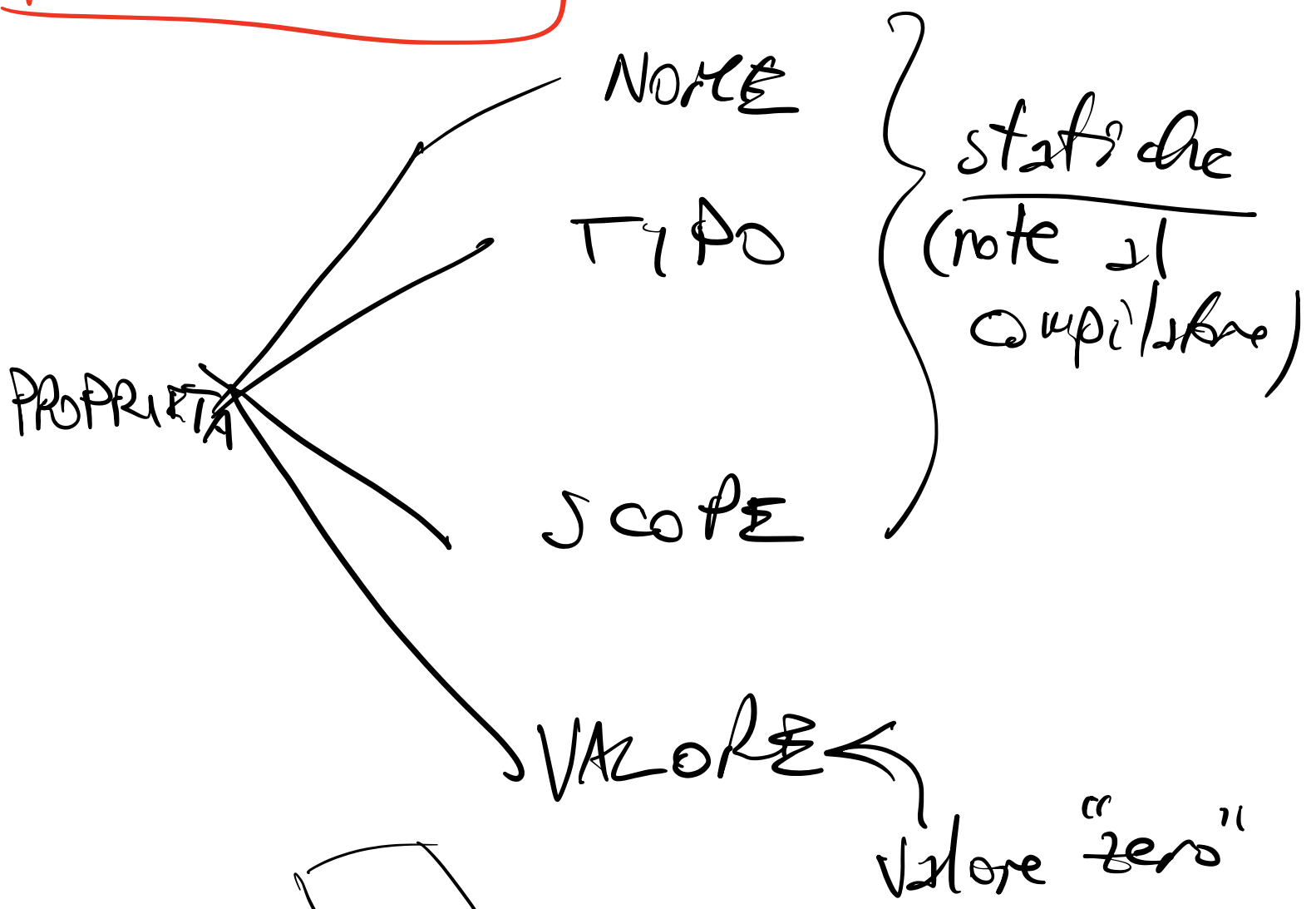


VARIABILI



DI CHIARAZIONE

var

ID, ID, ...

TIPO

SCOPE: spazio di codice
in cui quella variabile
è visibile

- DAL PUNTO IN CUI
DICHIARATA FINO
ALLA FINE DEL
blocco ({ ... })

```
func main() {
```

```
    ...
```

```
    var pippo int
```

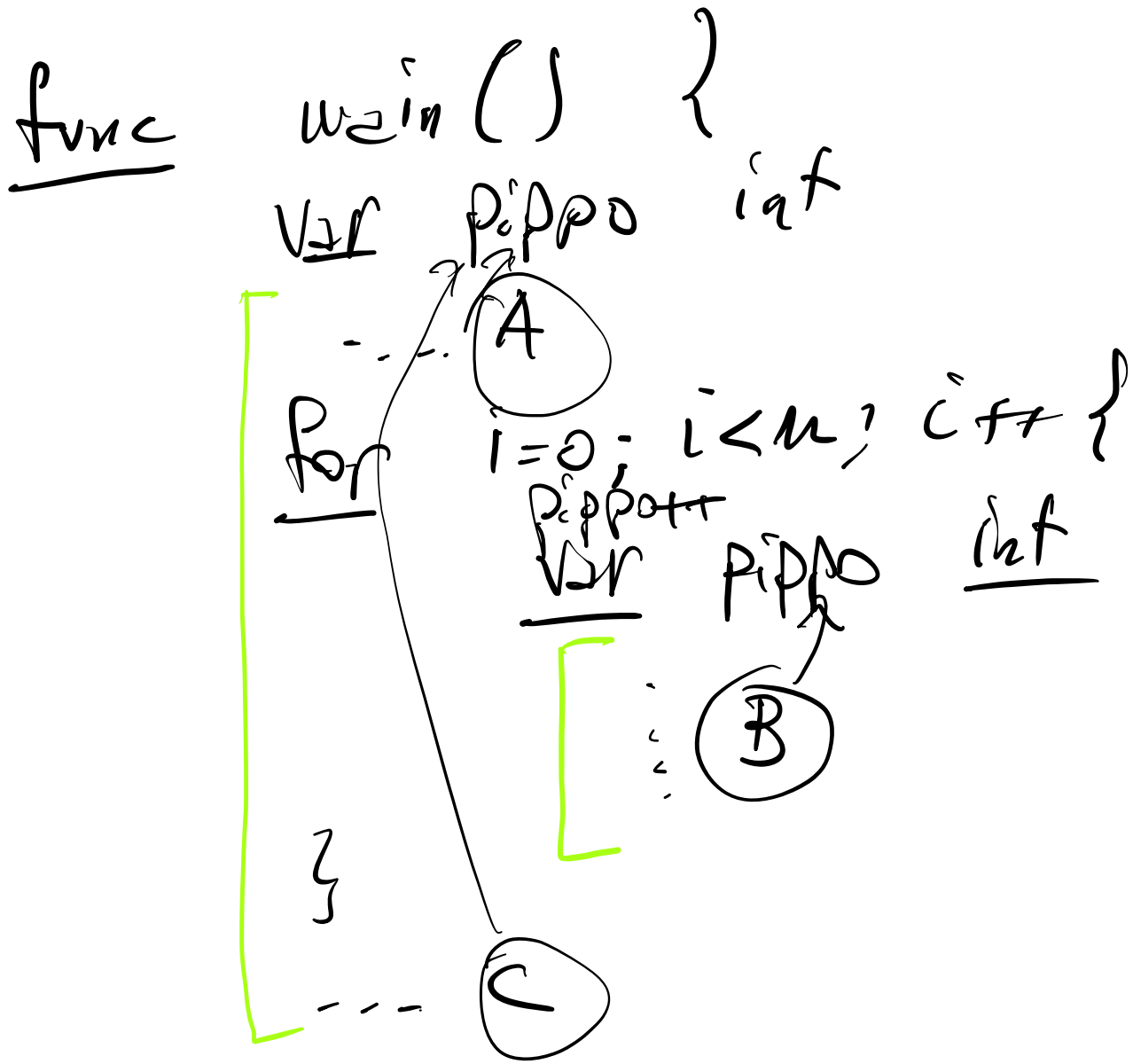
```
    ...
```

}

⋮

```
func   main () {  
  var   pippo  int  
  ... A  
  for   i=0; i<n; i++ {  
    var   pluto  int  
    ... B  
  }  
  ... C  
}
```

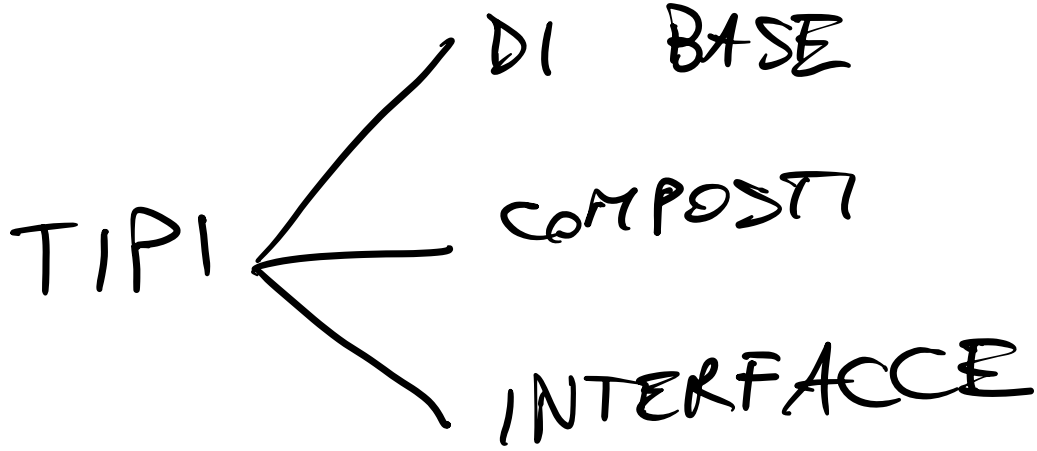
}



}

Shadowing

```
func main () {  
  var pippo, i int  
  pippo = 3  
  for i = 0; i < 5; i++ {  
    var pippo int  
    pippo = 7  
  }  
  fmt.Println(pippo)  
}
```



TIPO int VALORE ZERO
0

TIPO

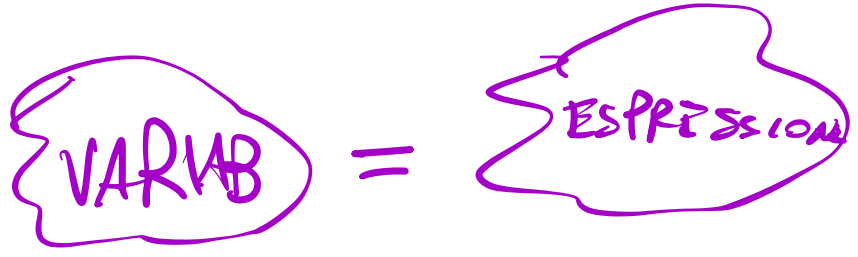
- VALORI POSSIBILI
- OPERATORI POSSIBILI E IL LORO SIGN.

int → VALORI INTERI CON SEGNO (\mathbb{Z})

var m, i, x, pippo int

...

ASSEGNAIMENTO



Var a, b, c int

$$a = 315$$

$$b = -20$$

$$a = b$$

$$c = a + 1$$

$$b = a + c - b$$

$$c = a + 1$$

$$\rightarrow b = a - b$$

funct. Print ln(b)

a	-20
b	-1
c	-19

+	somma
-	differenza
*	prodotto
/	divisione intera
%	resto della divisione intera

$$x = 4 / 2$$

$$x = 17 / 3 \quad \approx \quad 5$$

$$x = \boxed{17 \% 3} \quad \approx \quad 2$$

$$a = 1571$$

$$b = a \% 2 \quad \sim 1$$

$$a = 1573$$
$$b = a \% 10 \quad \sim \text{cifra delle unit\`e}$$

cifra delle decine

$$\sim (a/10) \% 10$$

$$(a \% 100) / 10$$

$$a = 1573$$

$$b = \underbrace{(a/100)}_{15} * 100$$

1500

$$b = \frac{(2 * 100)}{100} = 157300 / 100 = 1573$$

ASSEGNAZIONE MULTIPLO

$\{var_1, var_2, \dots, var_n\} =$
 $\{exp_1, \dots, exp_n\}$

var a, b, c int

$$c = 7$$

$$a, b = c + 1, c - 1$$

$$a = 5$$

$$a, b = \underbrace{a + 1}, \underbrace{a - 1}$$

6 4

a = 7

b = 2

a, b = b, a
 2 7

temp = a

a = b

b = temp

SHORT ASSIGNMENT

var :=

espr

DICHIARA E ASSEGNA
UNA VARIABLE

- TYPE INFERENCE

$a, b := 7, 9$ | var a, b int
 $a, b = 7, 9$

var a int
 $a = 5$

$a, b := a + 1, a - 1$

```
func      main      {  
  Var      a      int  
  a = 5  
  for i := 0; i < 5; i++ {  
    a, b := 7, 9  
  }  
}
```

↓
Shadowing