

Fondamenti di Elaborazione dei Dati Digitali

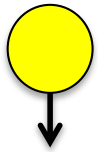
Lezione 5

Mario Verdicchio

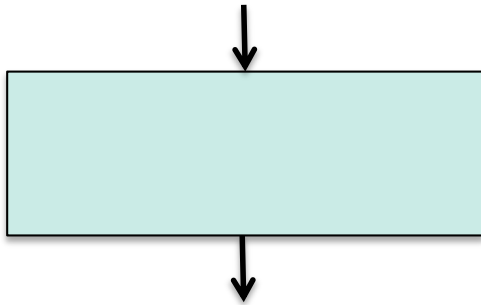
Università degli Studi di Bergamo

A.A. 2026-2027

Diagrammi di flusso

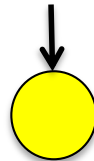
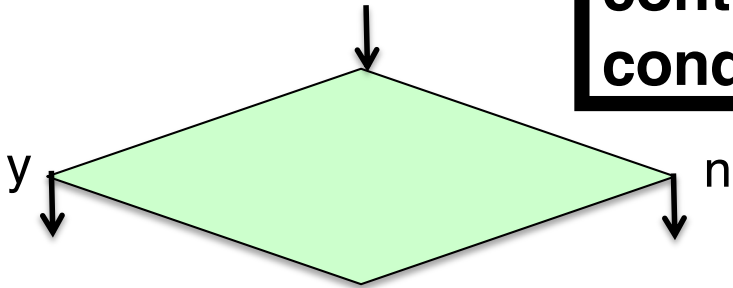


inizio



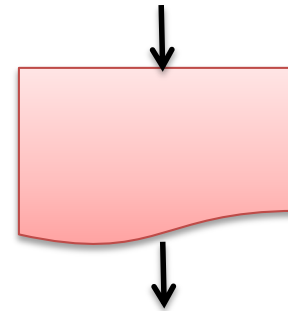
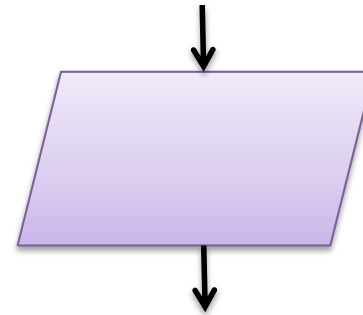
operazione

**controllo di
condizione**



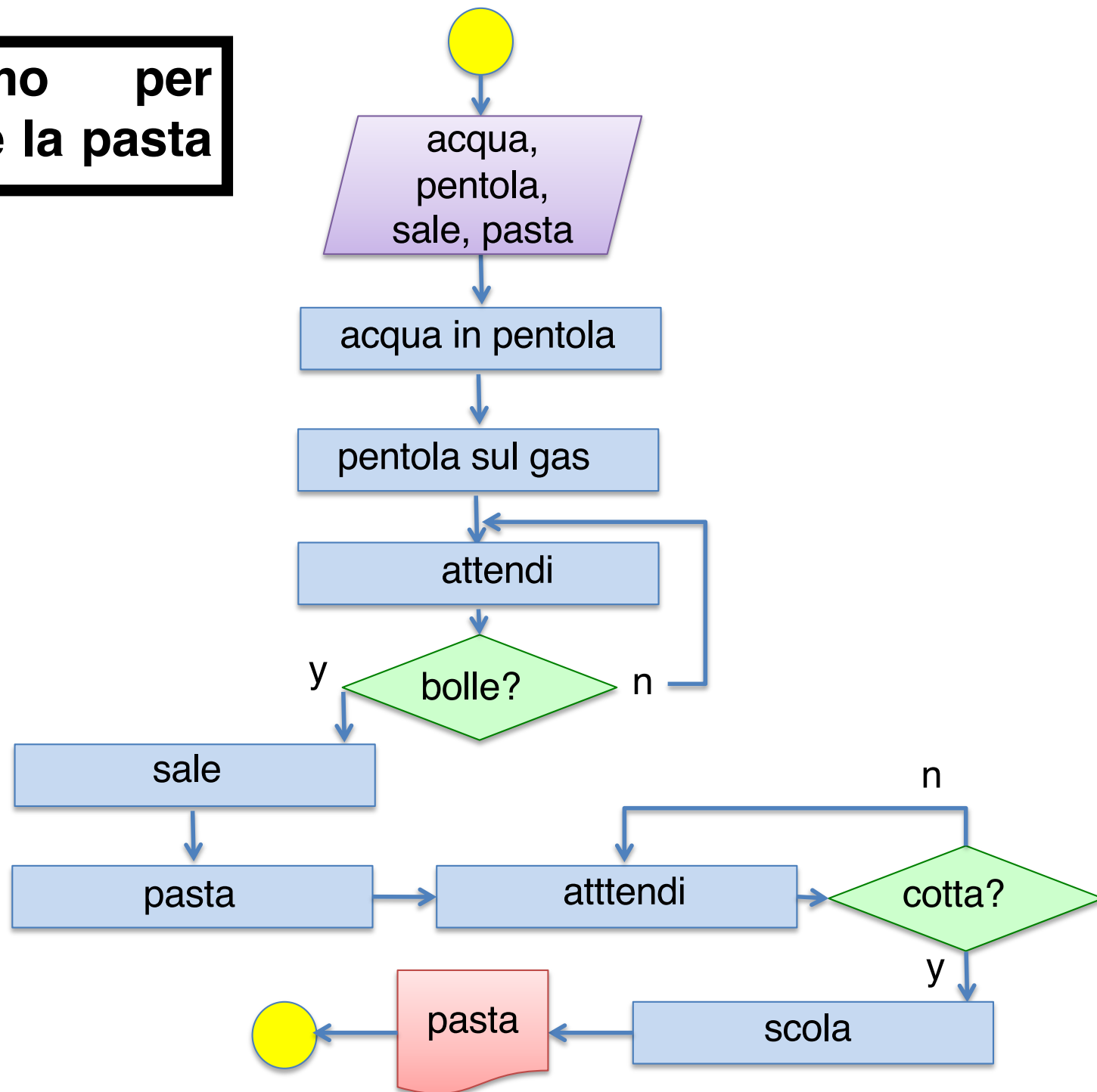
fine

input

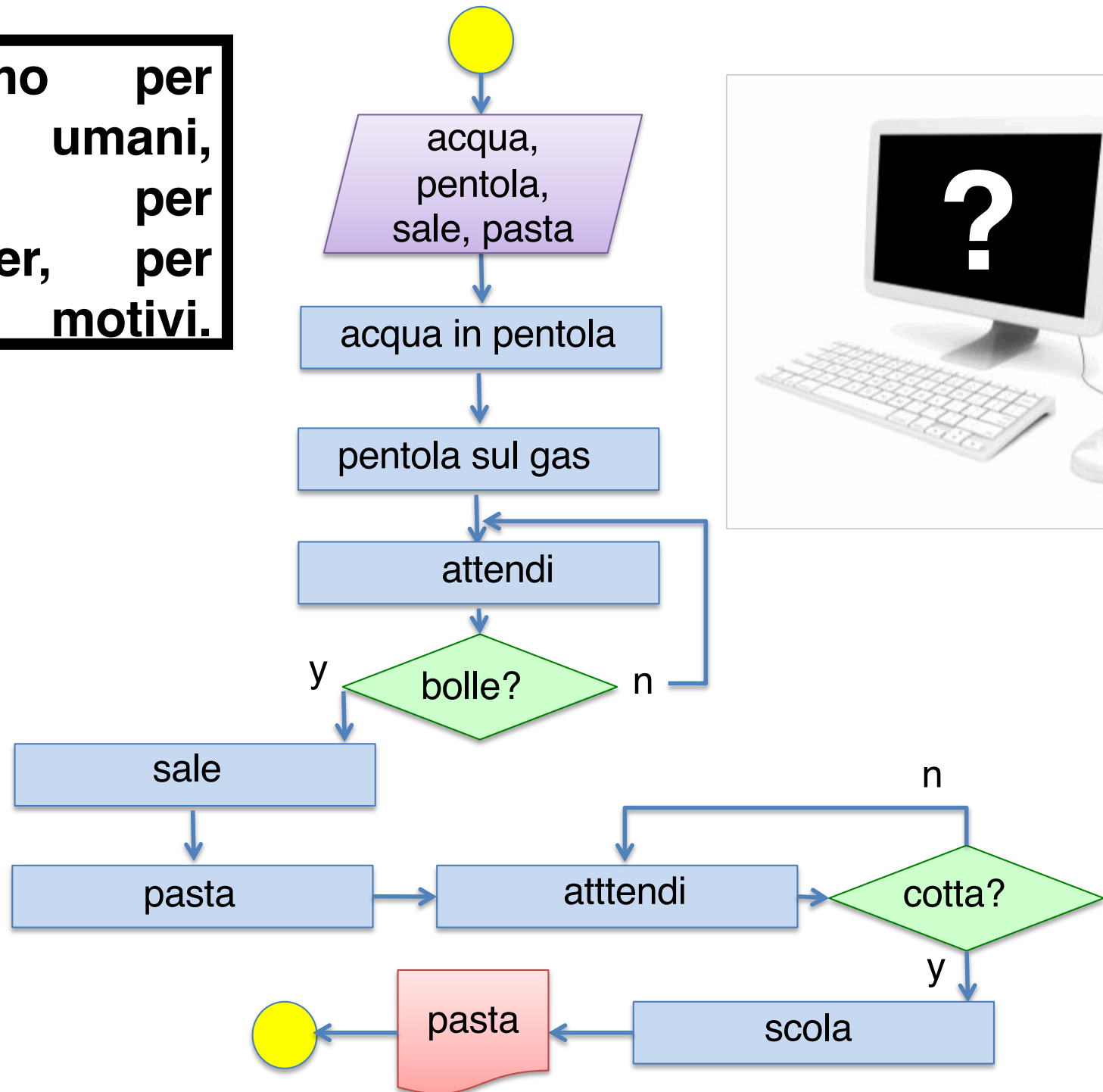


output

Algoritmo per cuocere la pasta



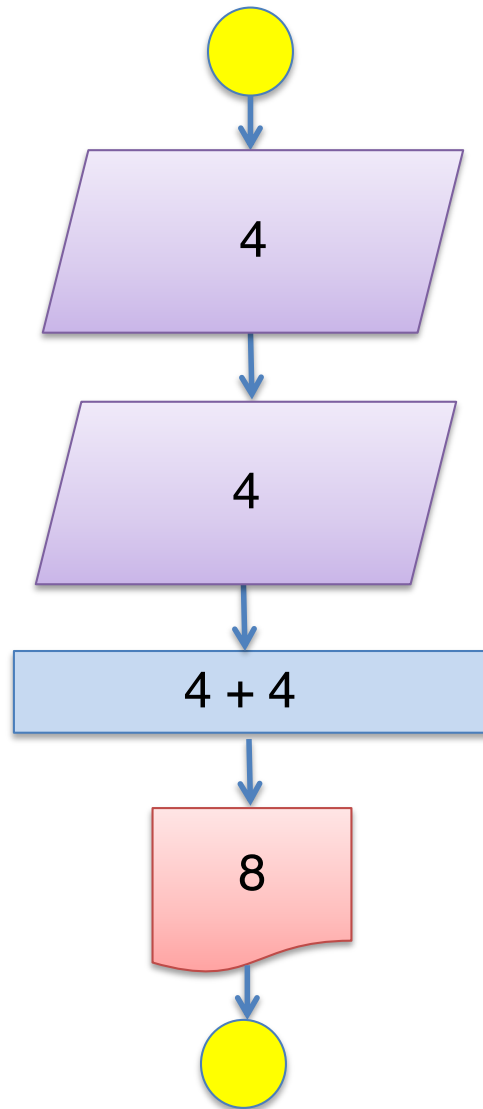
**Algoritmo per
esseri umani,
non per
computer, per
vari motivi.**

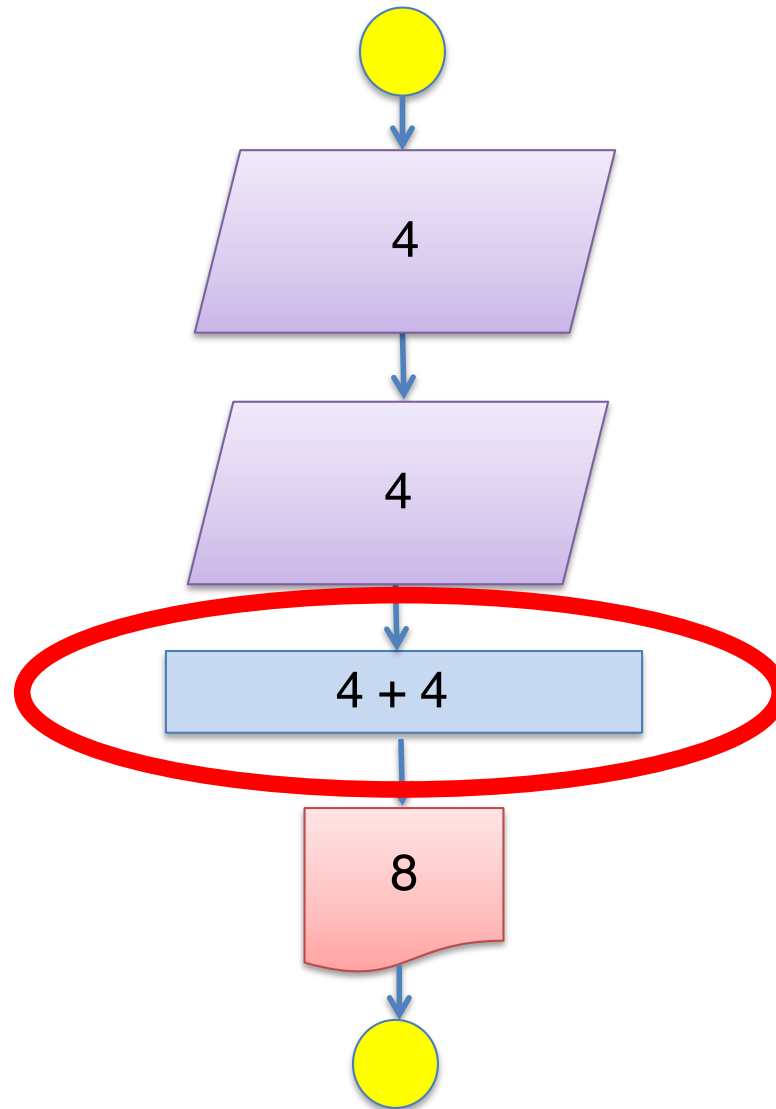


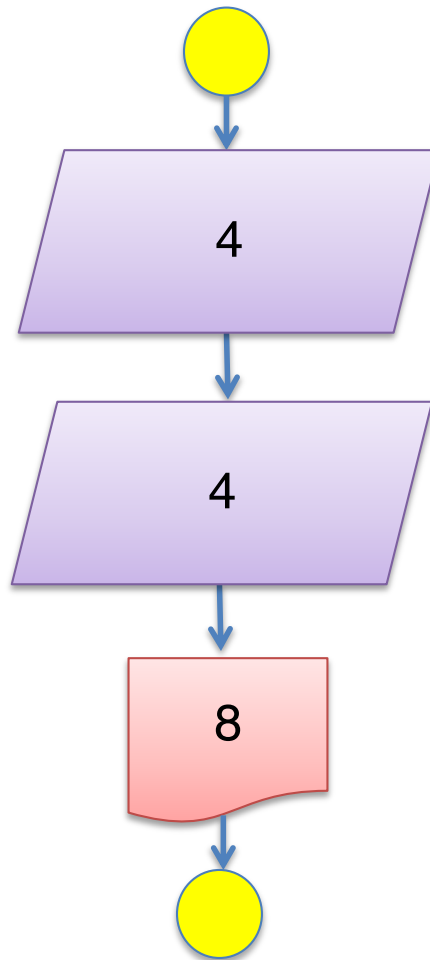


Un computer è un calcolatore: può solo ricevere dati numerici, elaborare dati numerici, e restituire dati numerici.

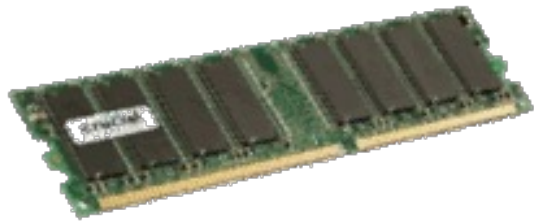
Algoritmo per fare $4 + 4$.







Variabili



X

pip

[illegible]

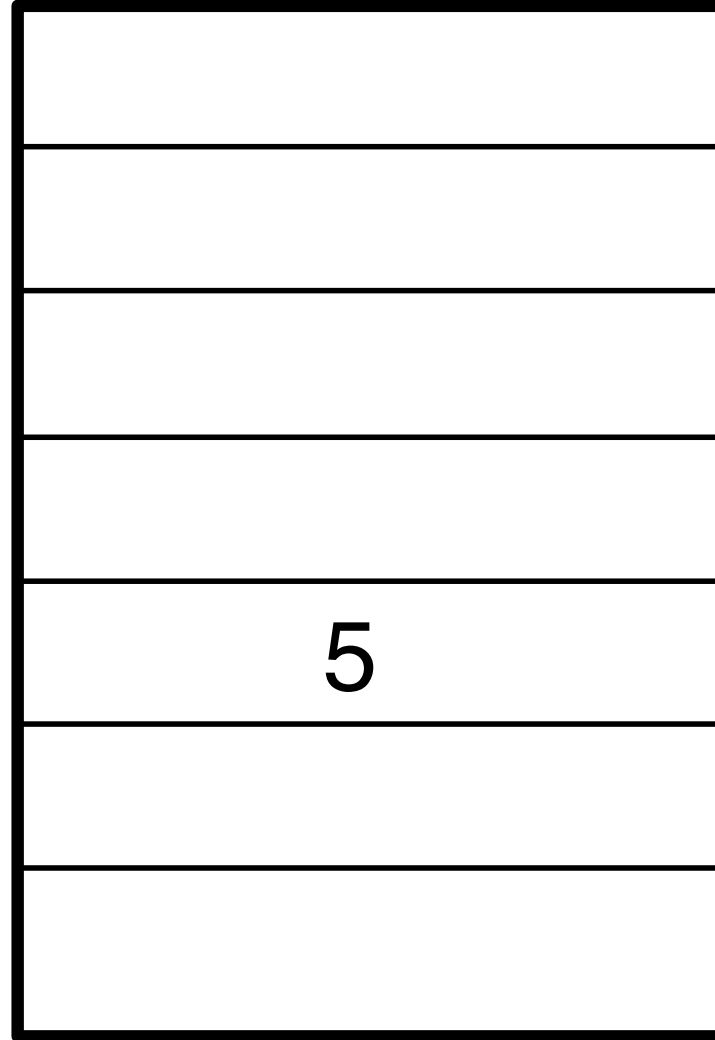
Assegnamenti

$x \leftarrow 5$

x

5

pippo



Assegnamenti

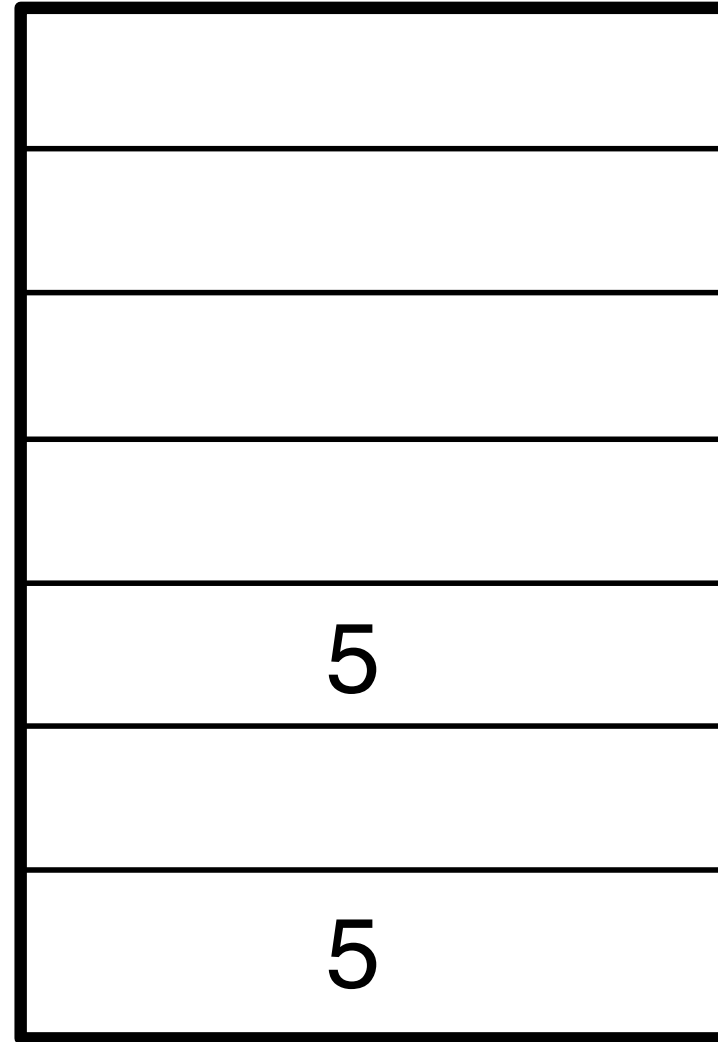
pippo $\leftarrow$ x

x

5

pippo

5



Assegnamenti

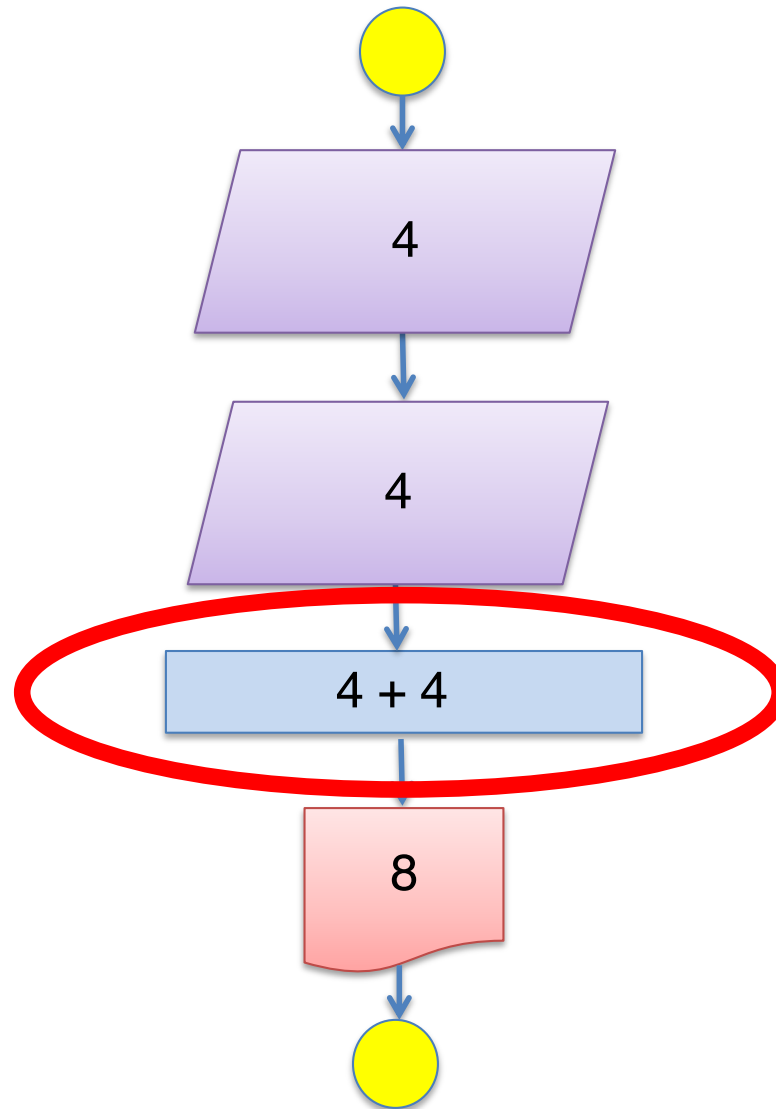
$\text{pippo} \leftarrow \text{pippo} \times 2$

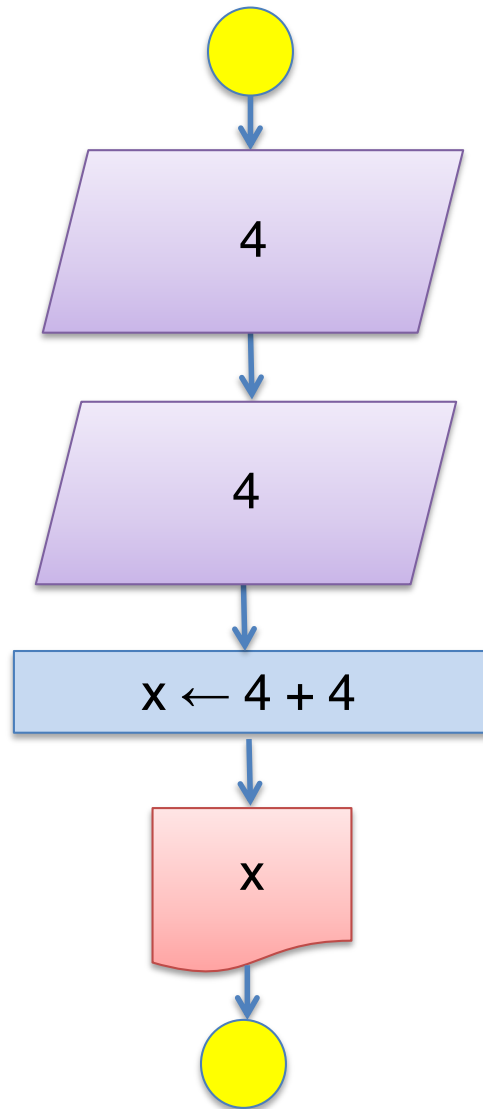
x

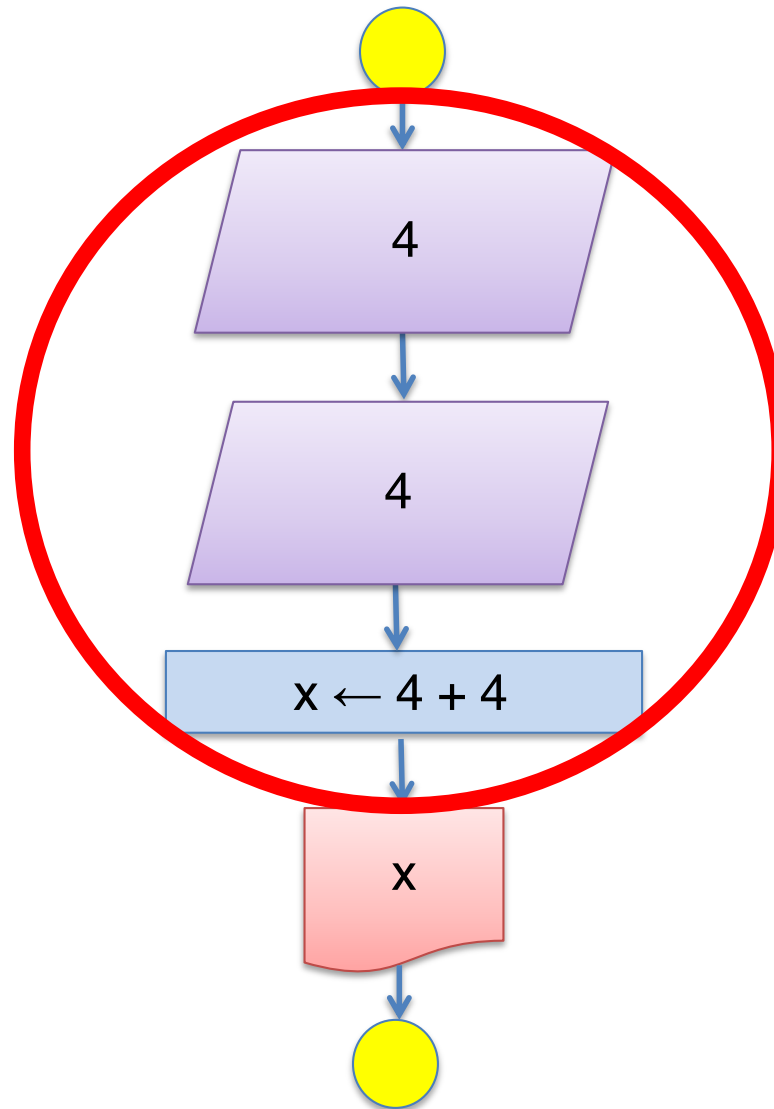
5

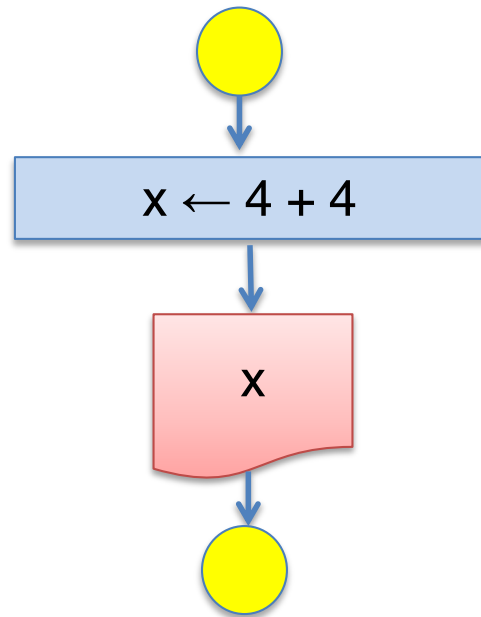
pippo

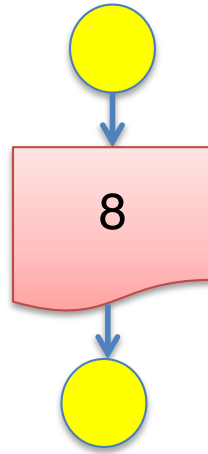
10



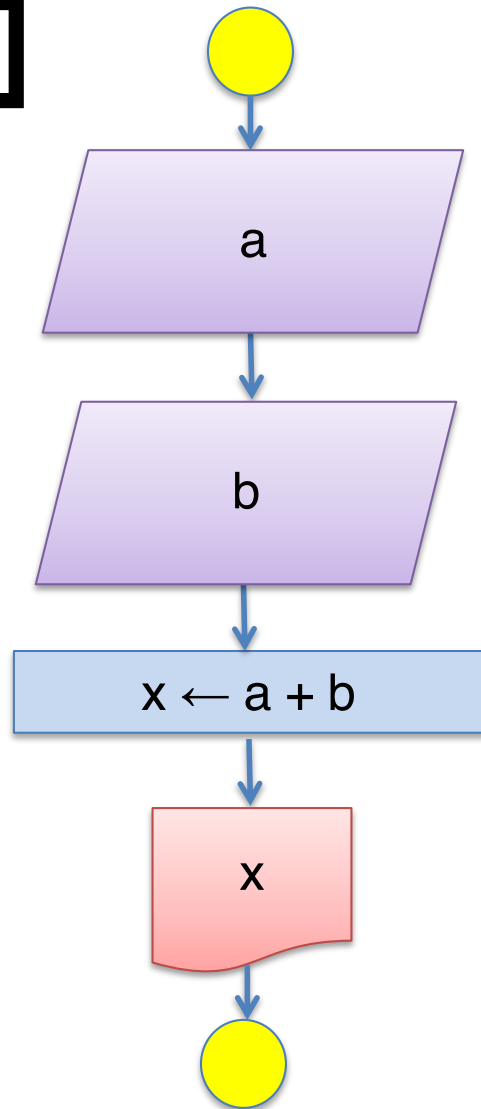


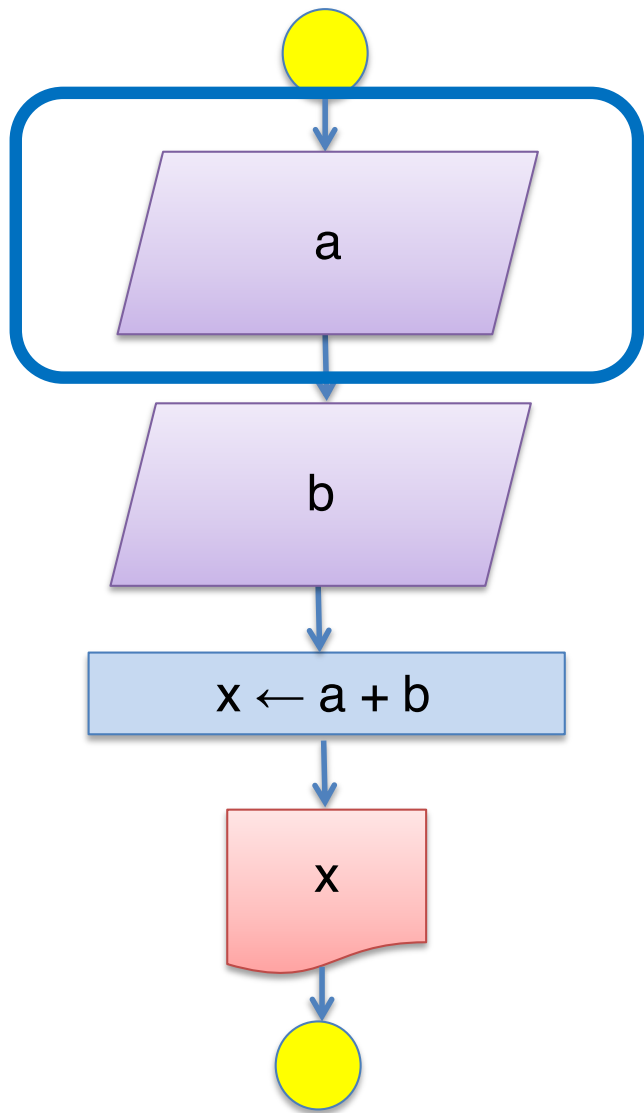




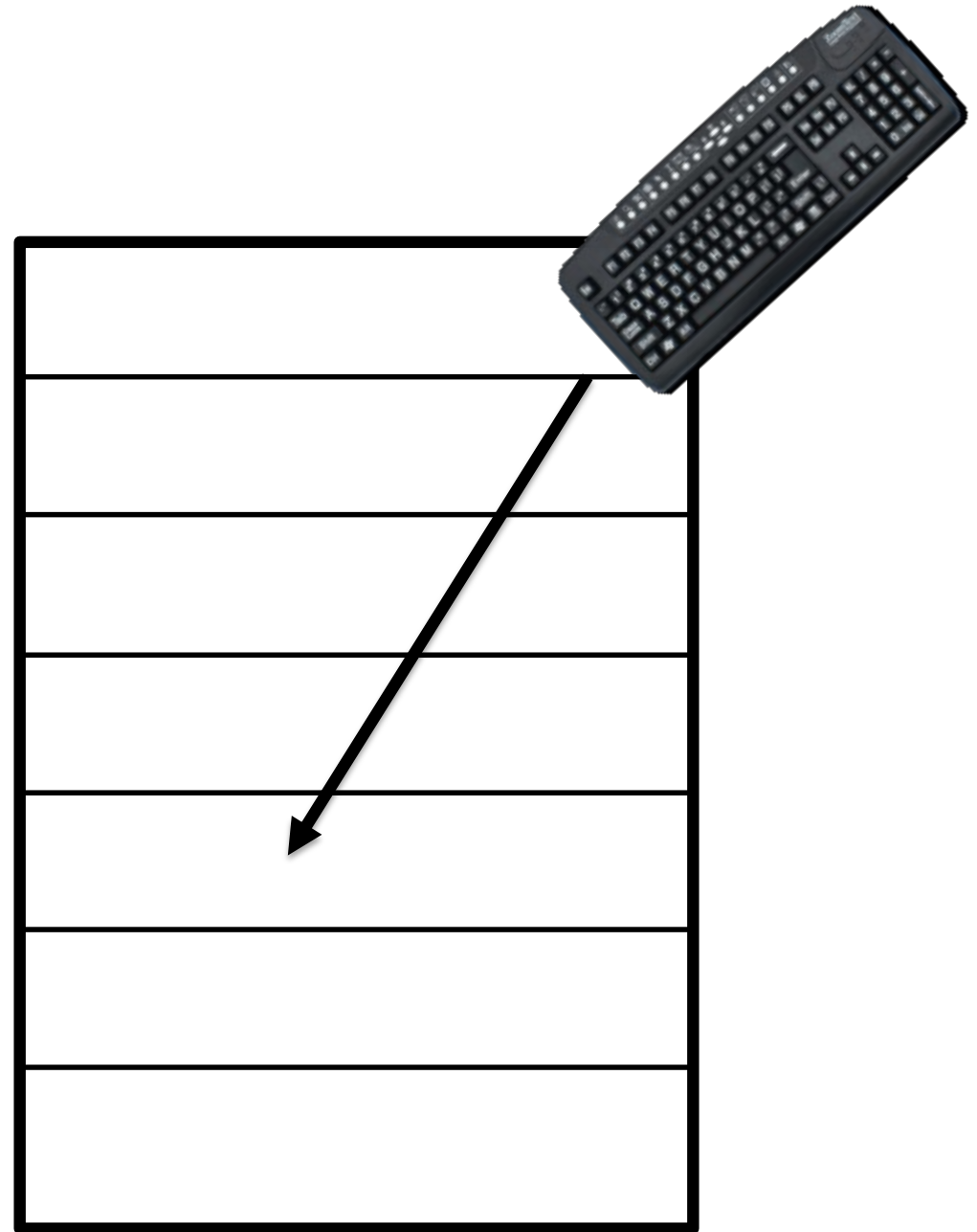


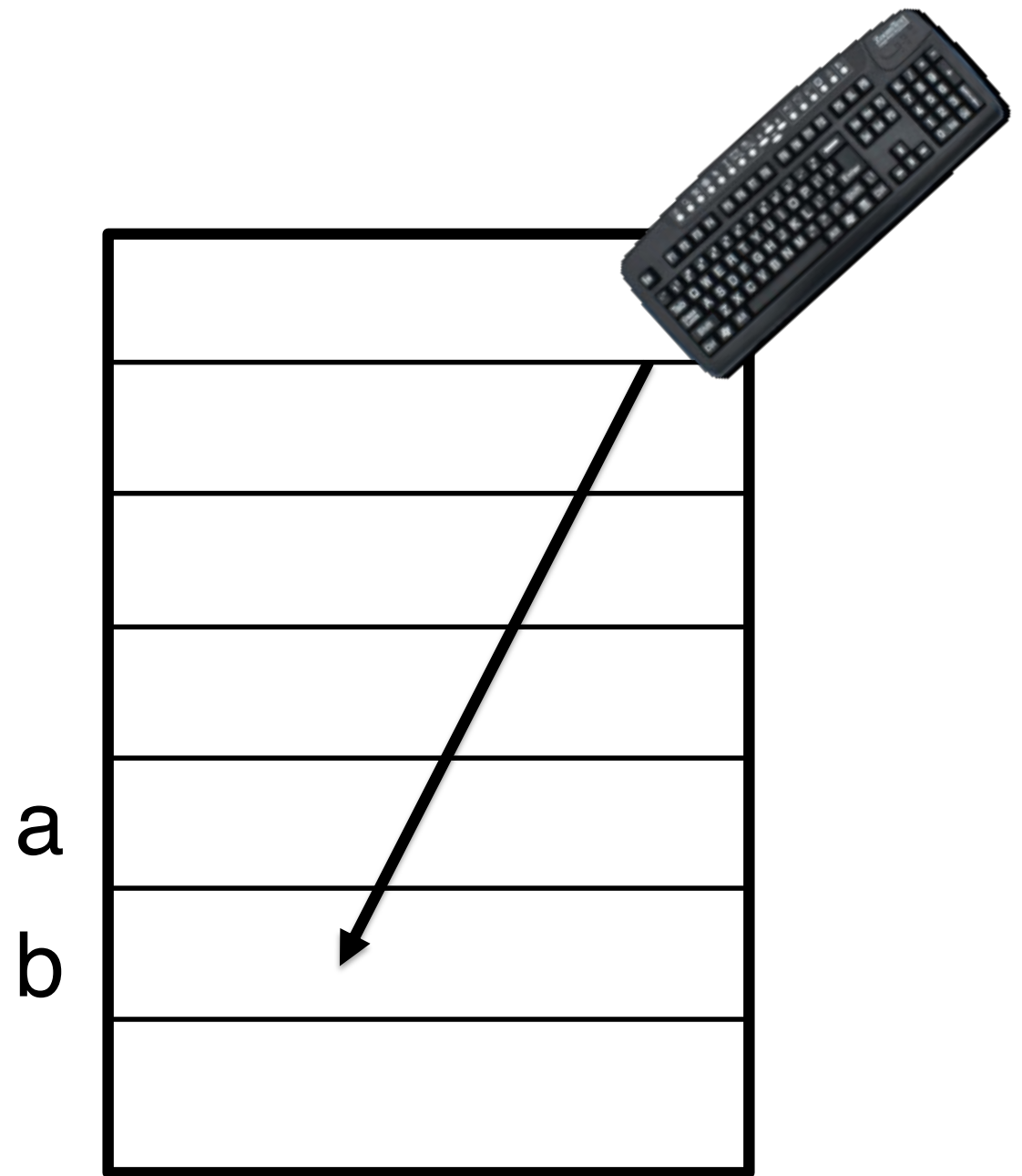
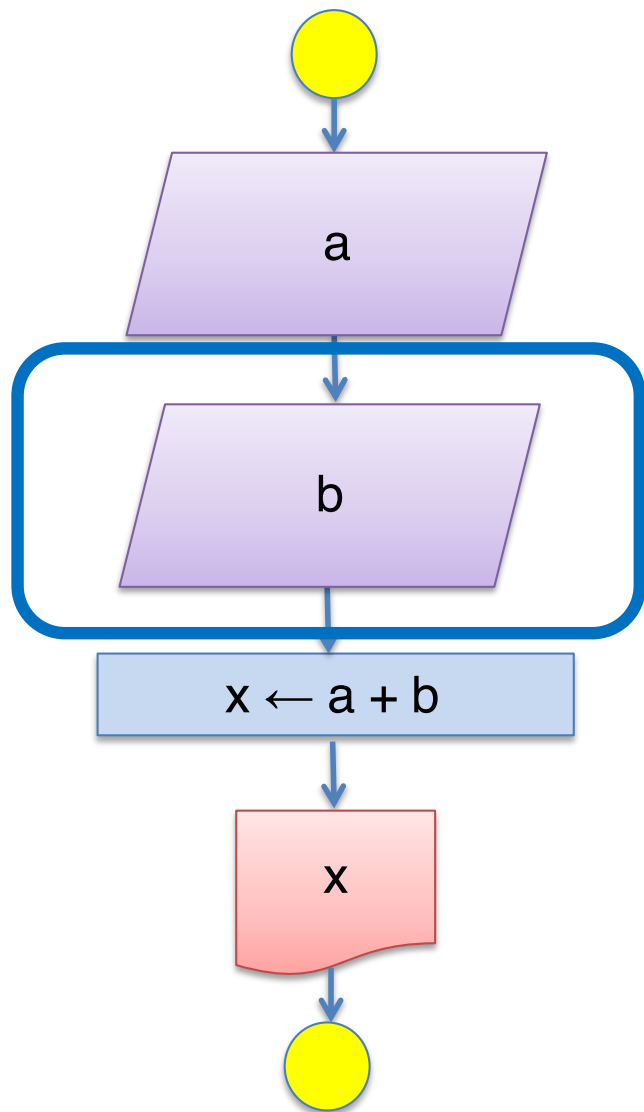
Parametrizzazione

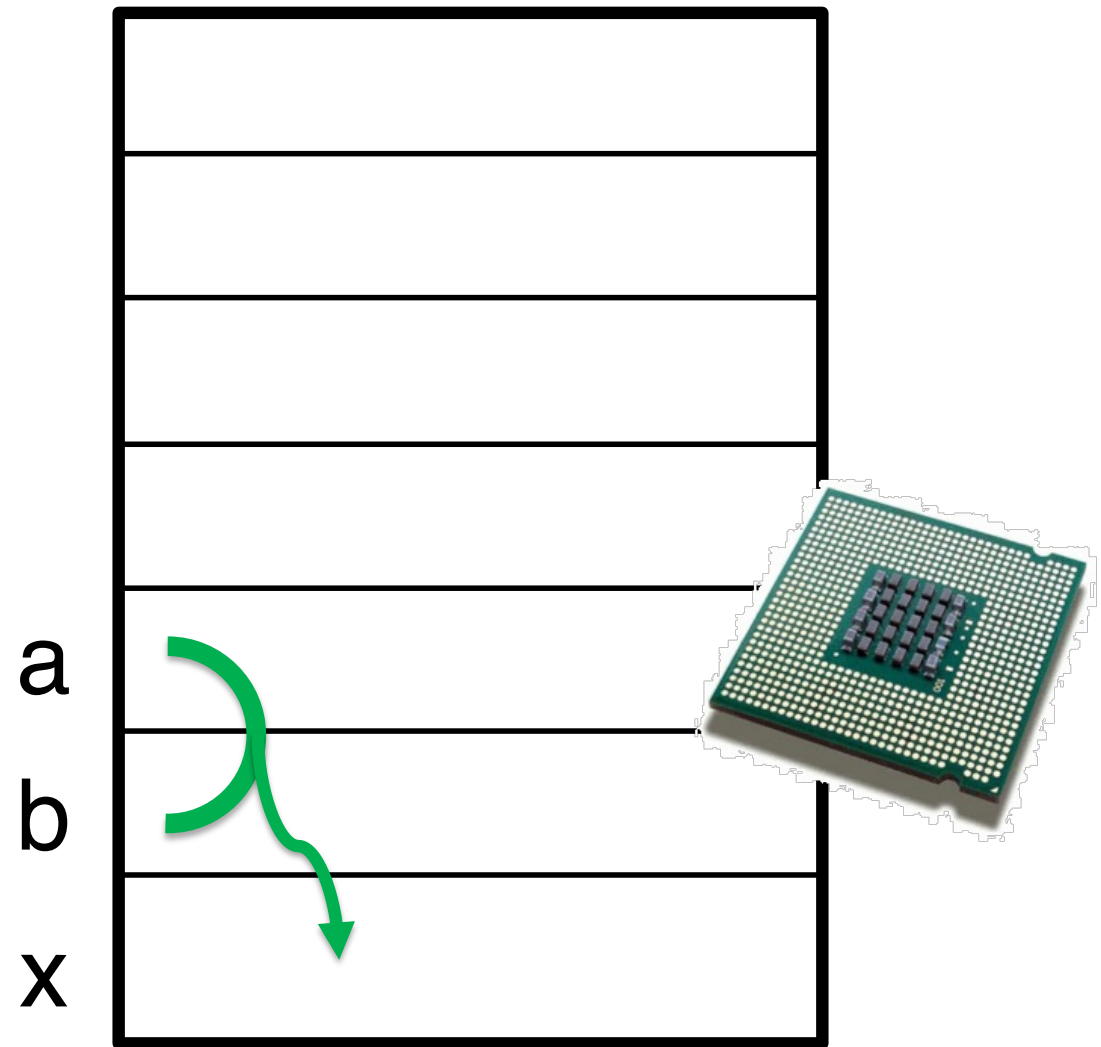
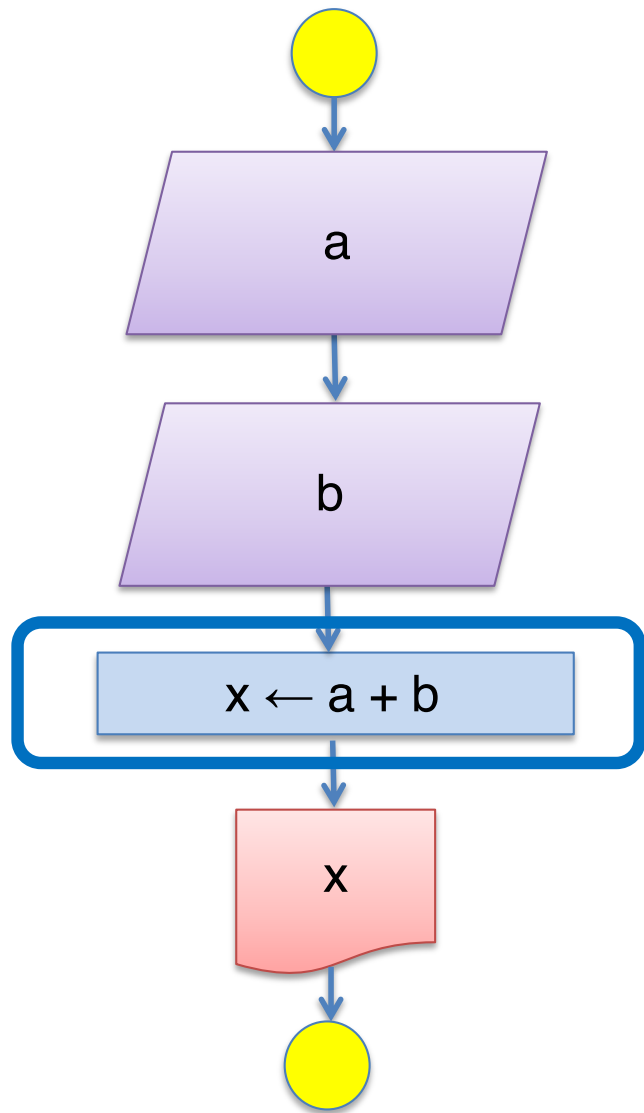


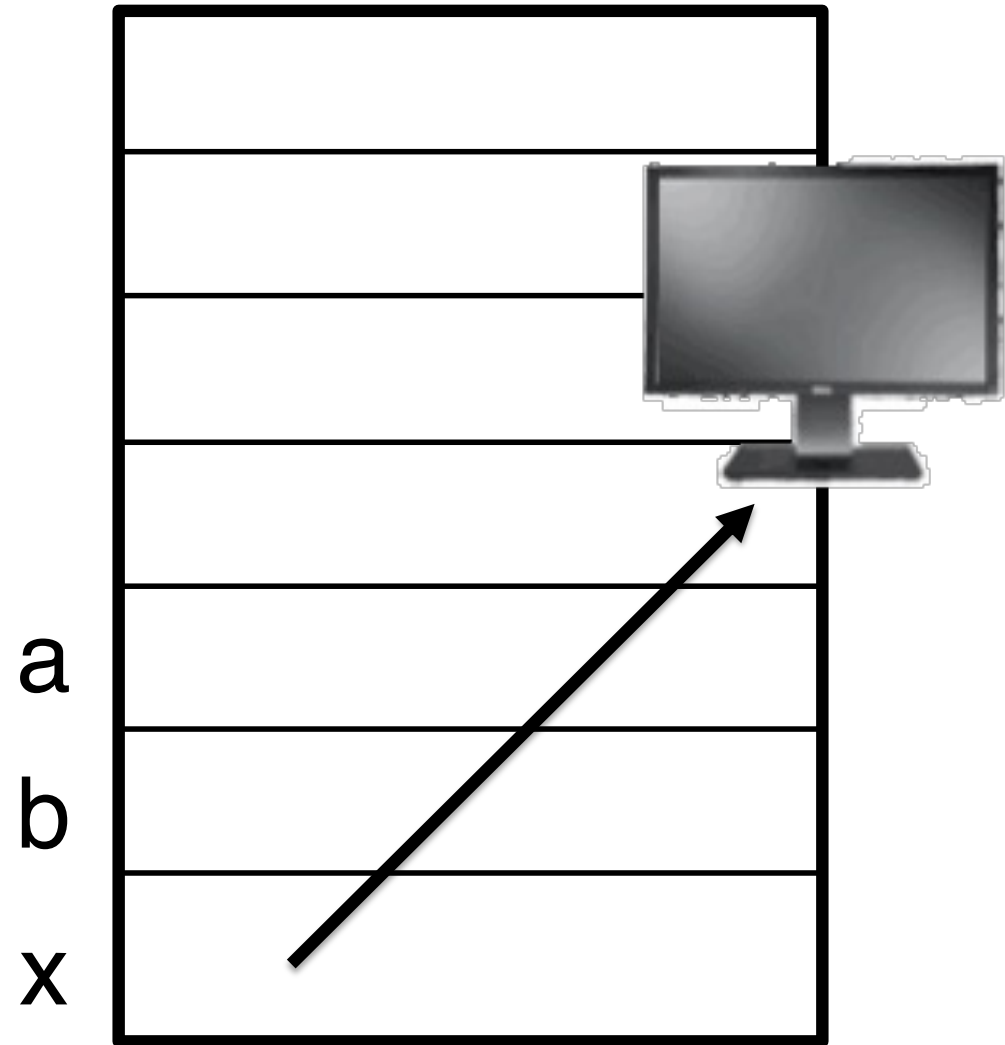
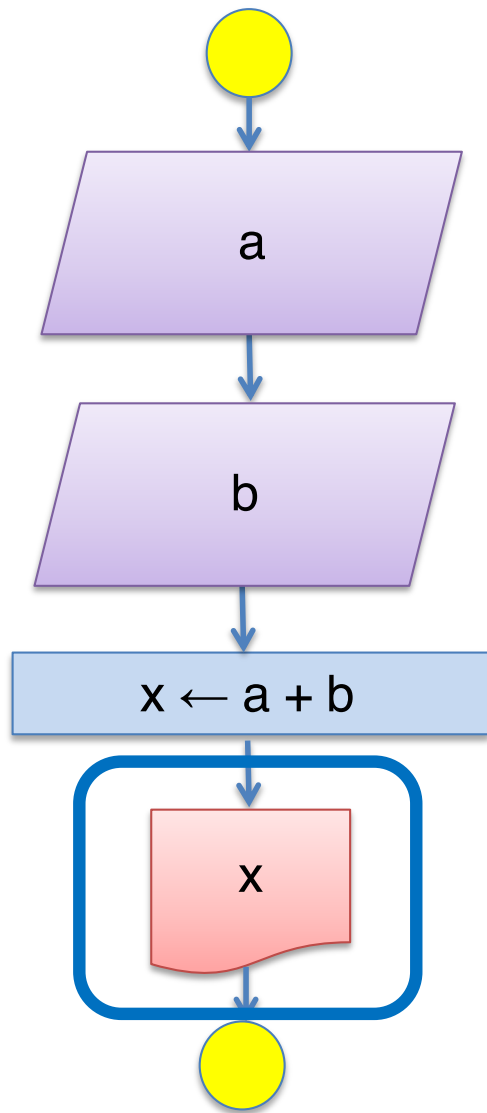


a





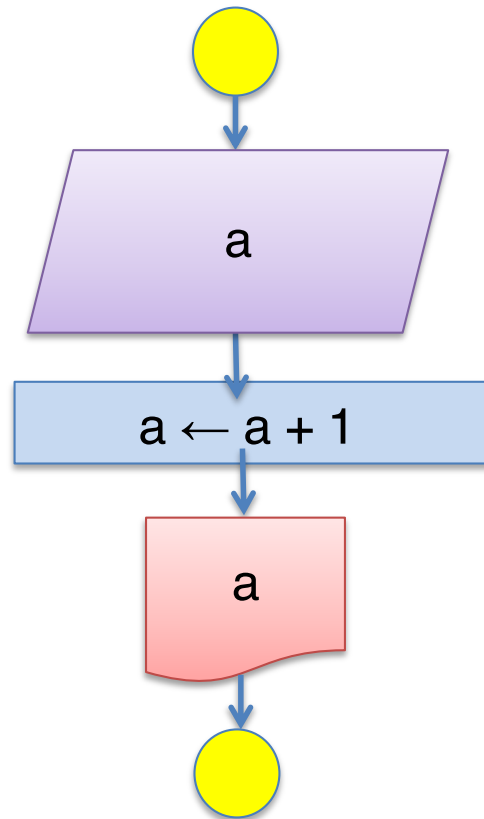




Algoritmo per fare $a + b$.

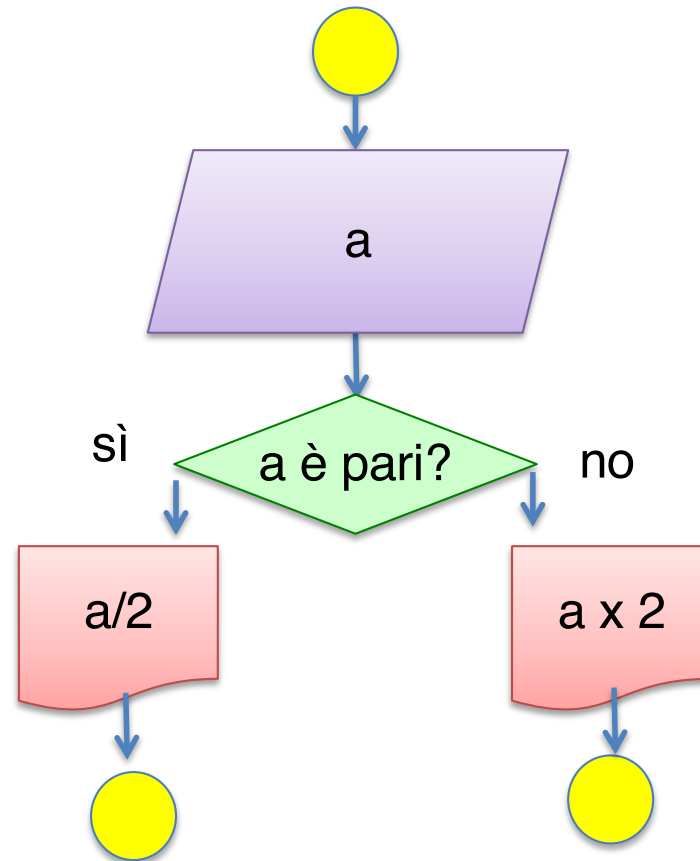
Esercizio

Fare il diagramma di flusso di un algoritmo che riceve in input un numero e restituisce in output il numero aumentato di 1.



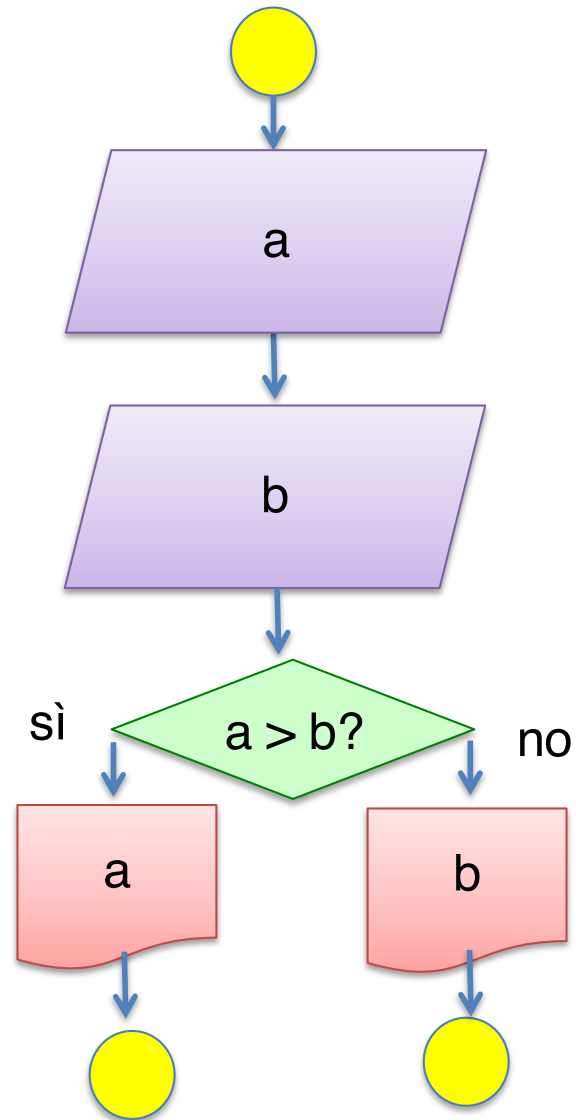
Esercizio

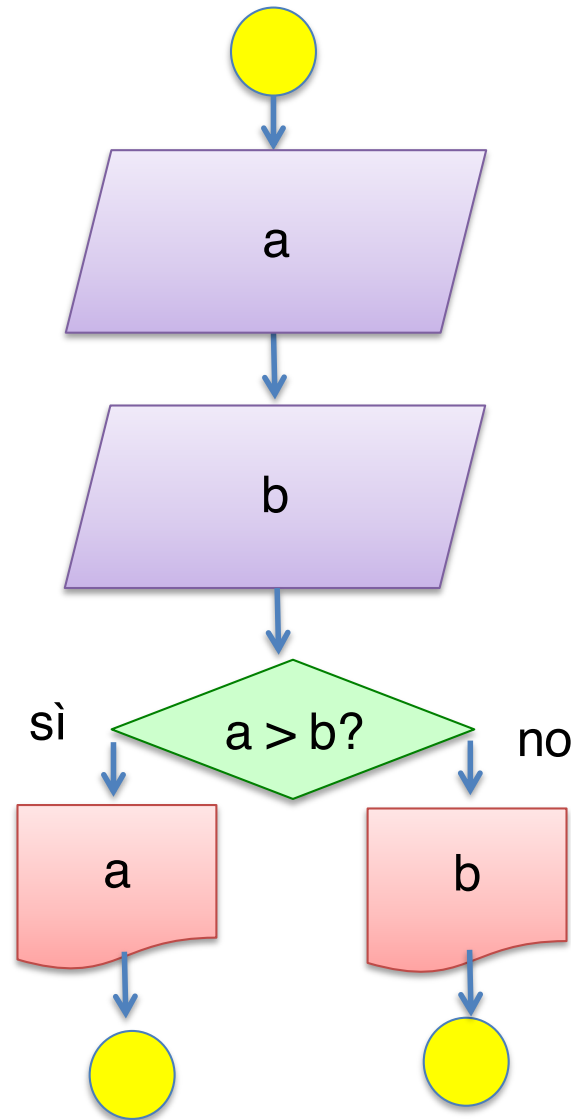
Fare il diagramma di flusso di un algoritmo che riceve in input un numero e restituisce il suo doppio se il numero è dispari, la sua metà se il numero è pari.



Esercizio

Fare il diagramma di flusso di un algoritmo che riceve in input due numeri e restituisce il più grande dei due.





**e se $a = b$?
I casi limite
vanno trattati
con attenzione.**



Esercizio

Fare il diagramma di flusso di un algoritmo che riceve in input due numeri e restituisce il loro massimo comune divisore.