

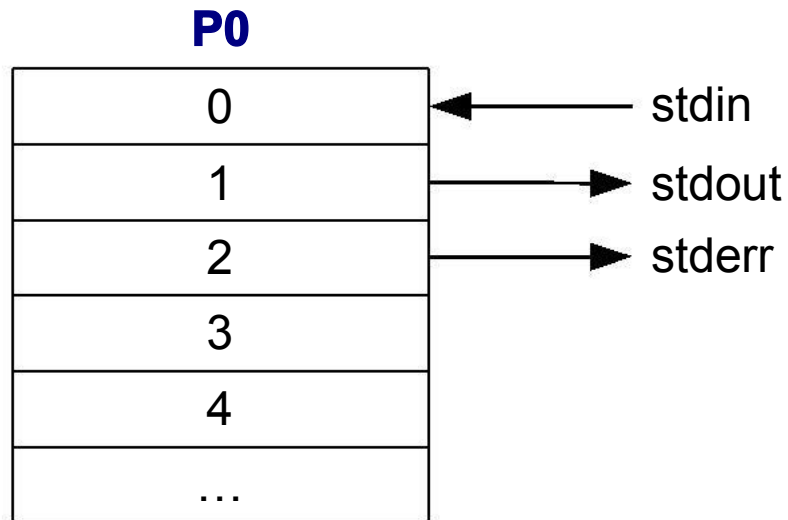
Università di Ferrara
Laurea Triennale in Informatica
A.A. 2021-2022
Sistemi Operativi e Laboratorio

Lab-06b. Esempio pipe

Prof. Carlo Giannelli

`http://www.unife.it/scienze/informatica/insegnamenti/
sistemi-operativi-laboratorio`
`http://docente.unife.it/carlo.giannelli`
`https://ds.unife.it/people/carlo.giannelli`

Esercizio 1 – Schema soluzione 1/15

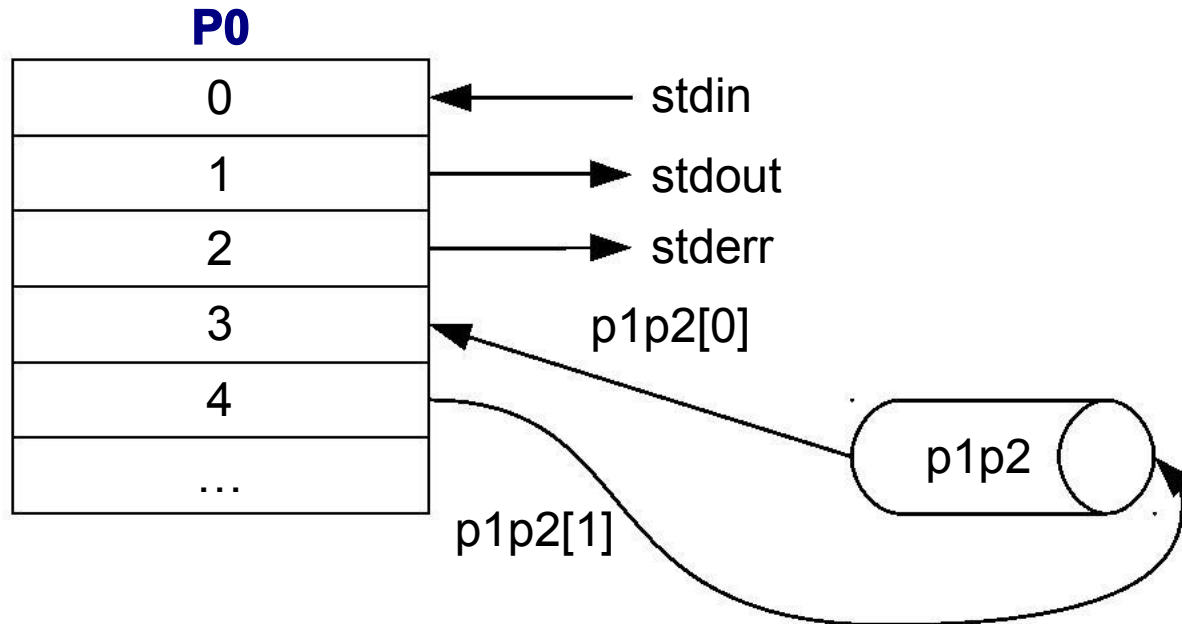


Il processo P0 deve creare due processi figli:

- P1 che effettua un "grep stringa"
- P2 che effettua una "wc -l"

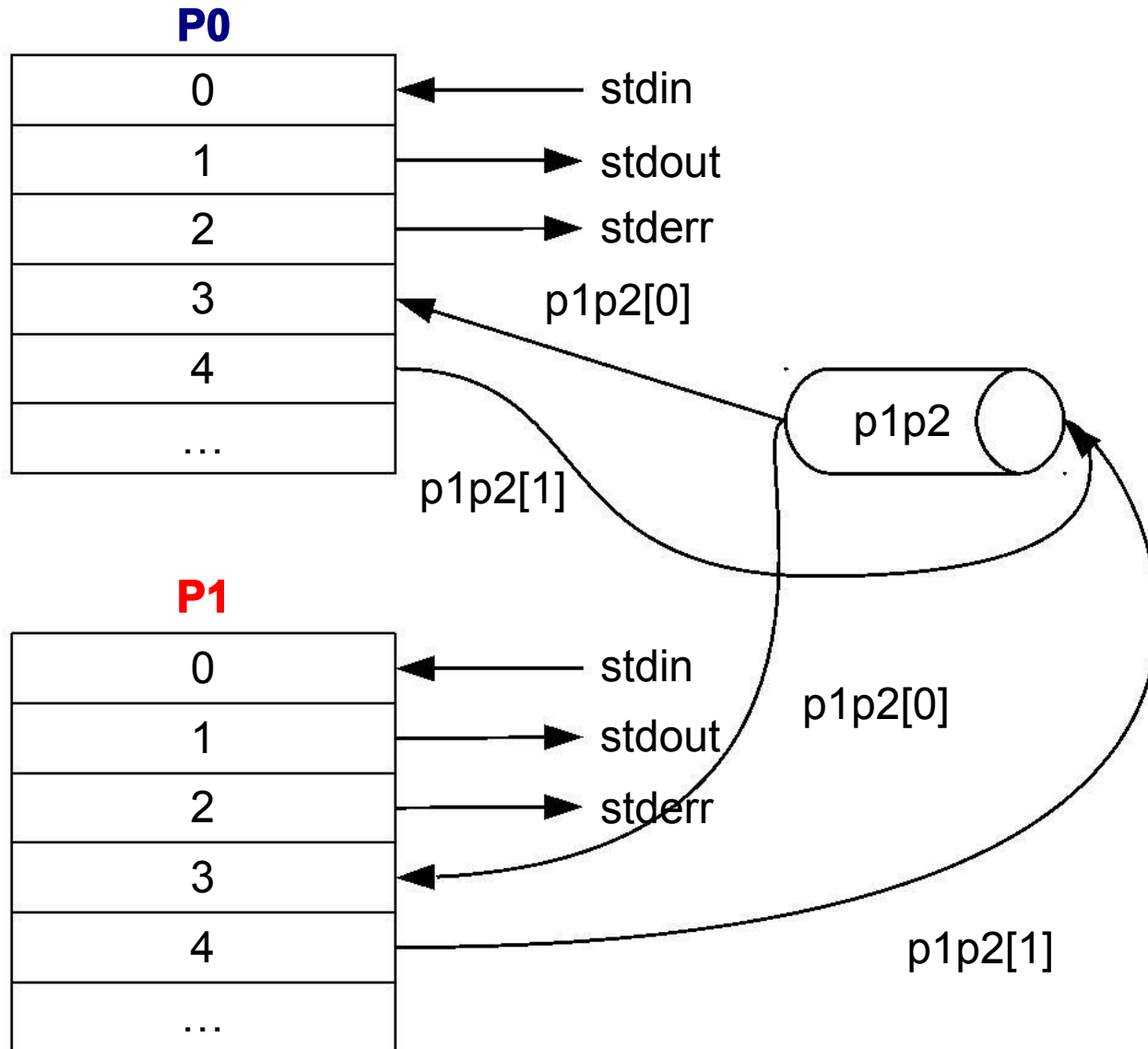
Tramite una pipe l'output della grep deve essere rediretto nell'input della wc

Esercizio 1 – Schema soluzione 2/15



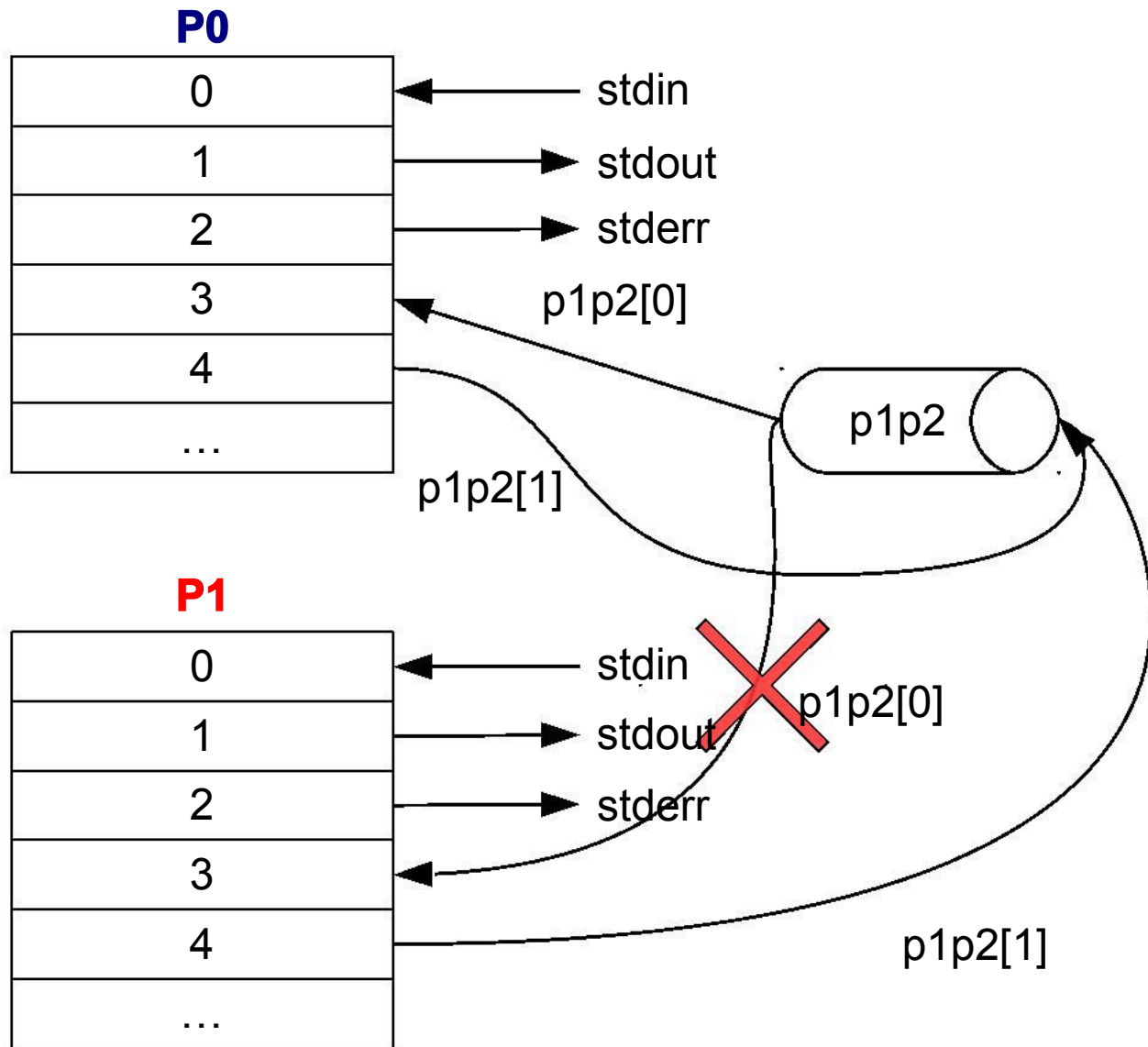
```
// P0  
pipe(p1p2)
```

Esercizio 1 – Schema soluzione 3/15



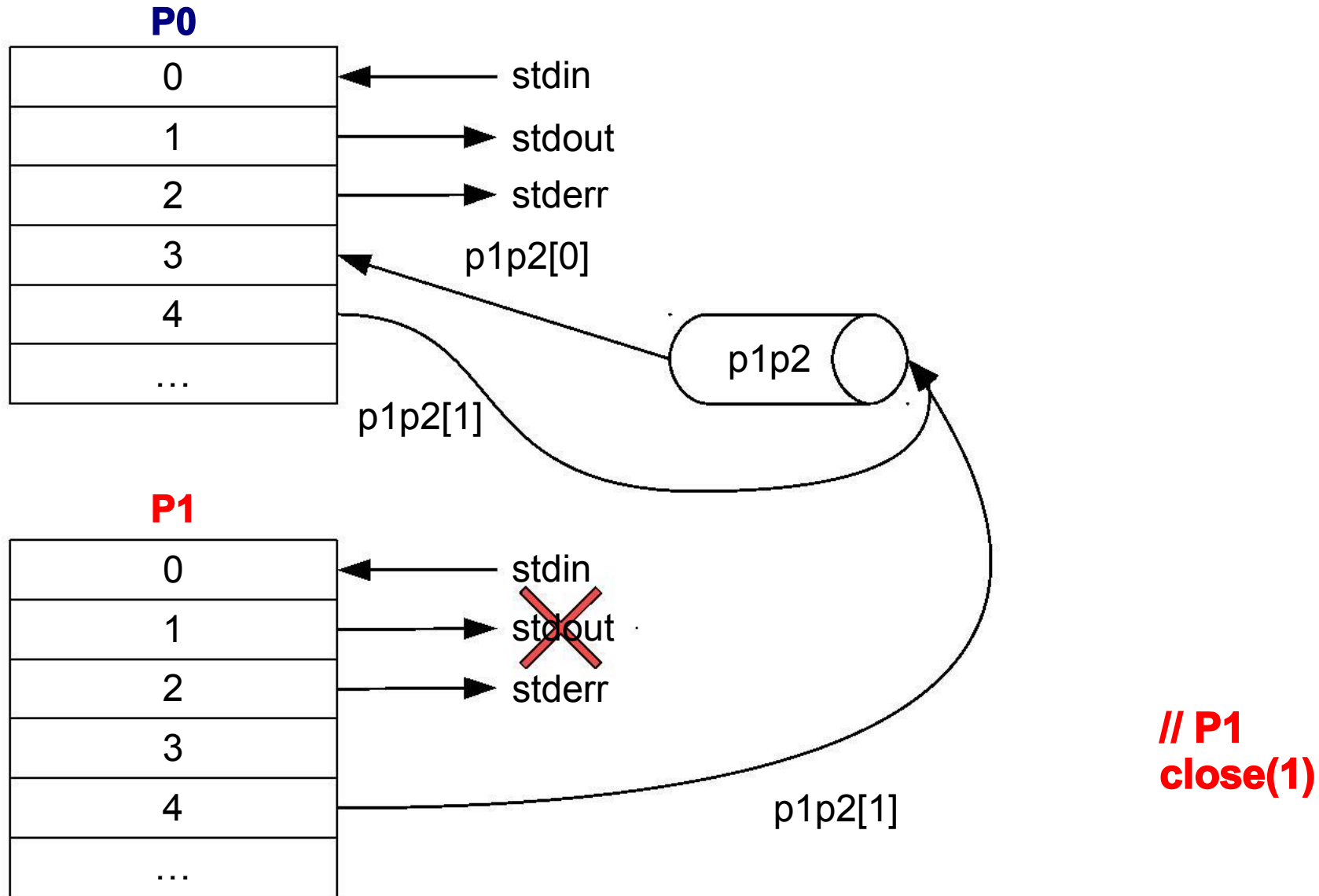
// P0
pid1 = fork()

Esercizio 1 – Schema soluzione 4/15

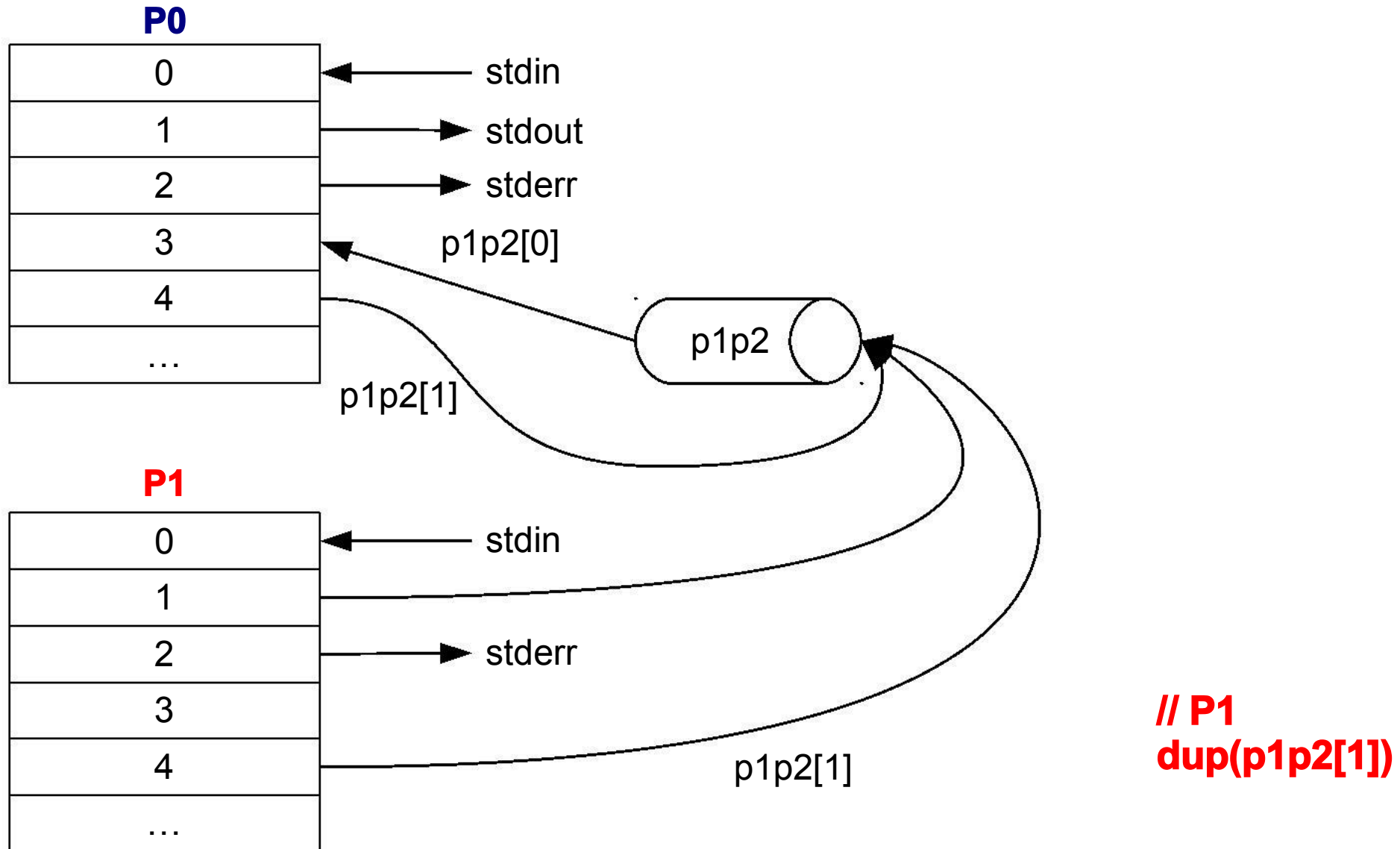


// P1
close(p1p2[0])

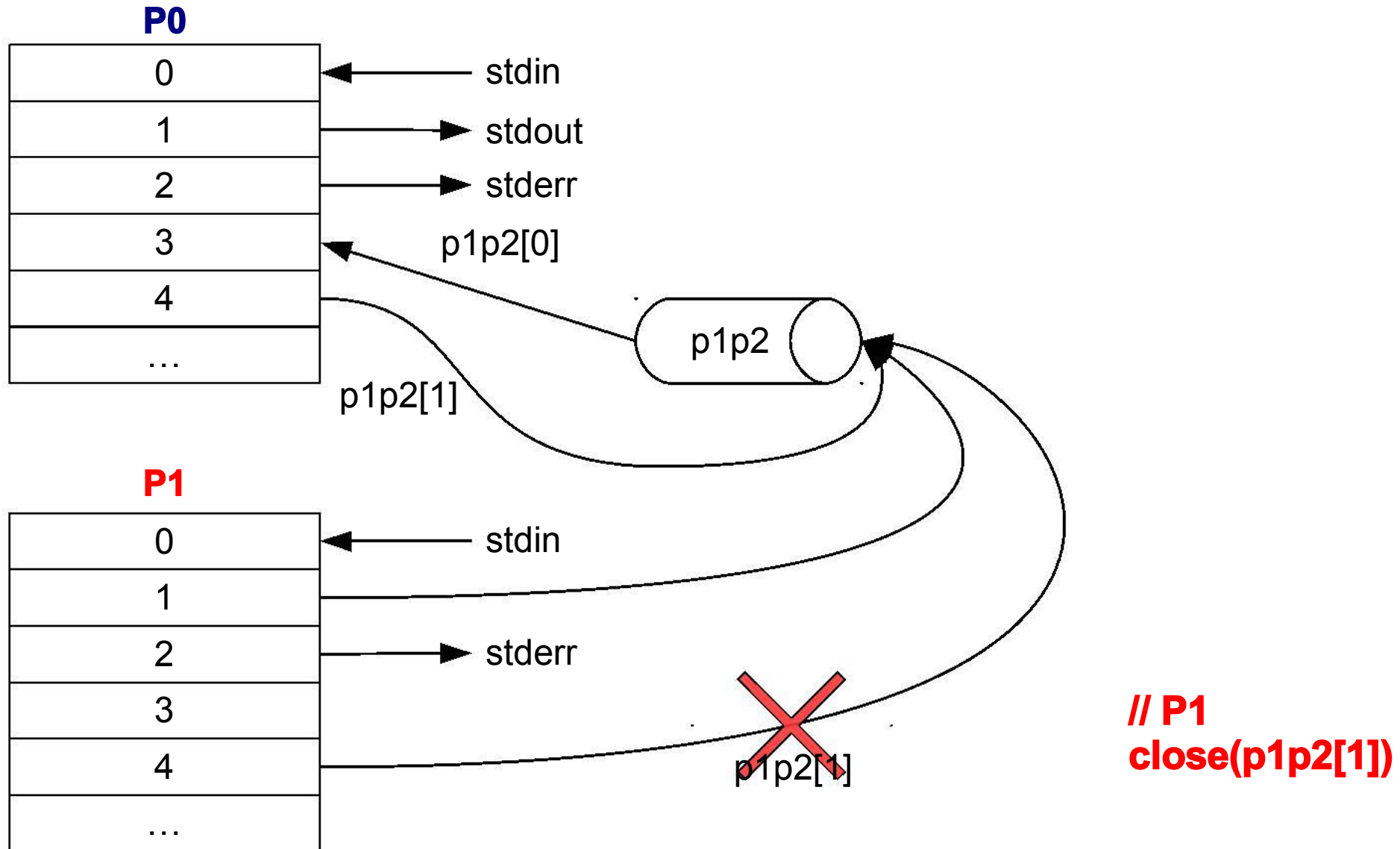
Esercizio 1 – Schema soluzione 5/15



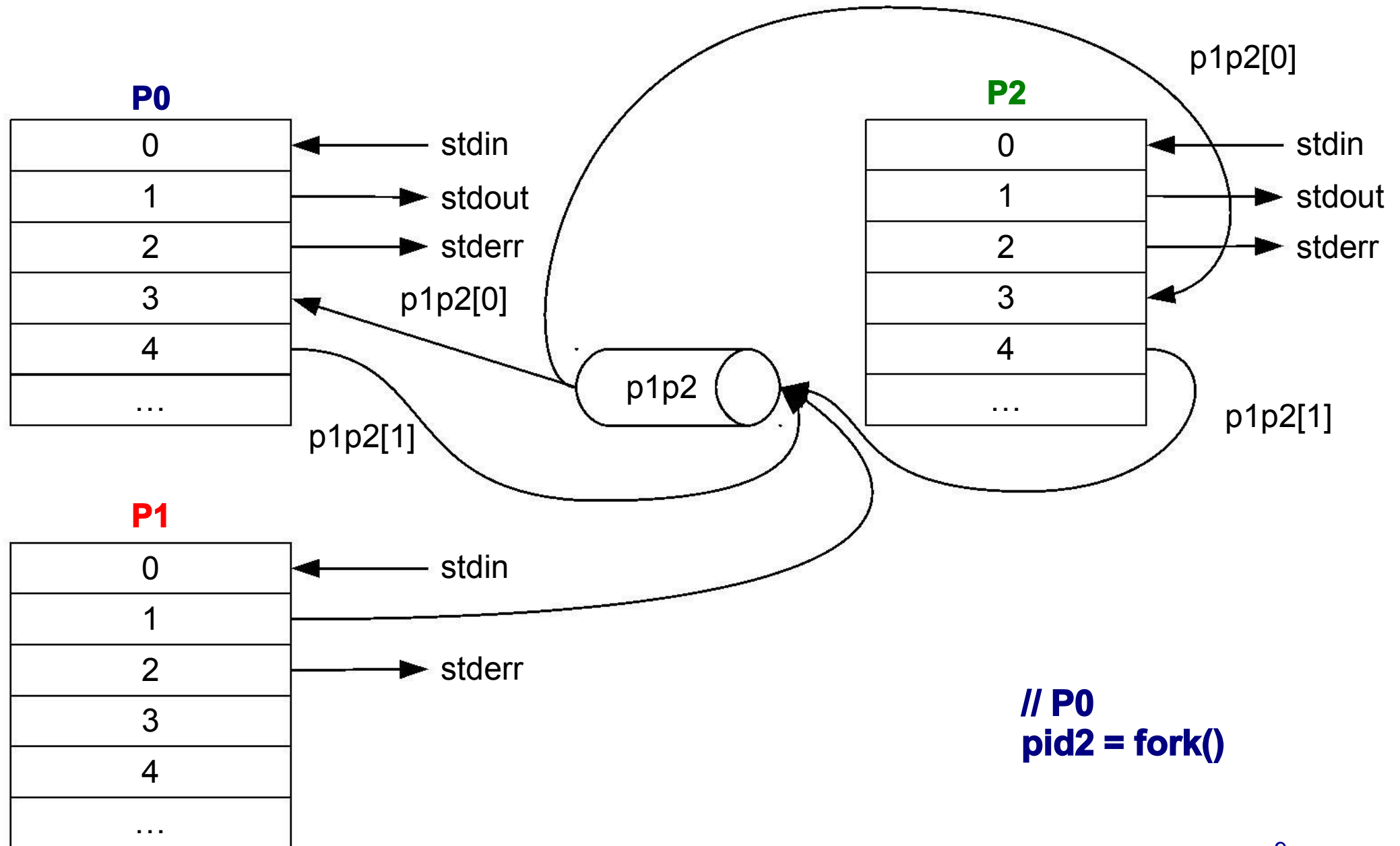
Esercizio 1 – Schema soluzione 6/15



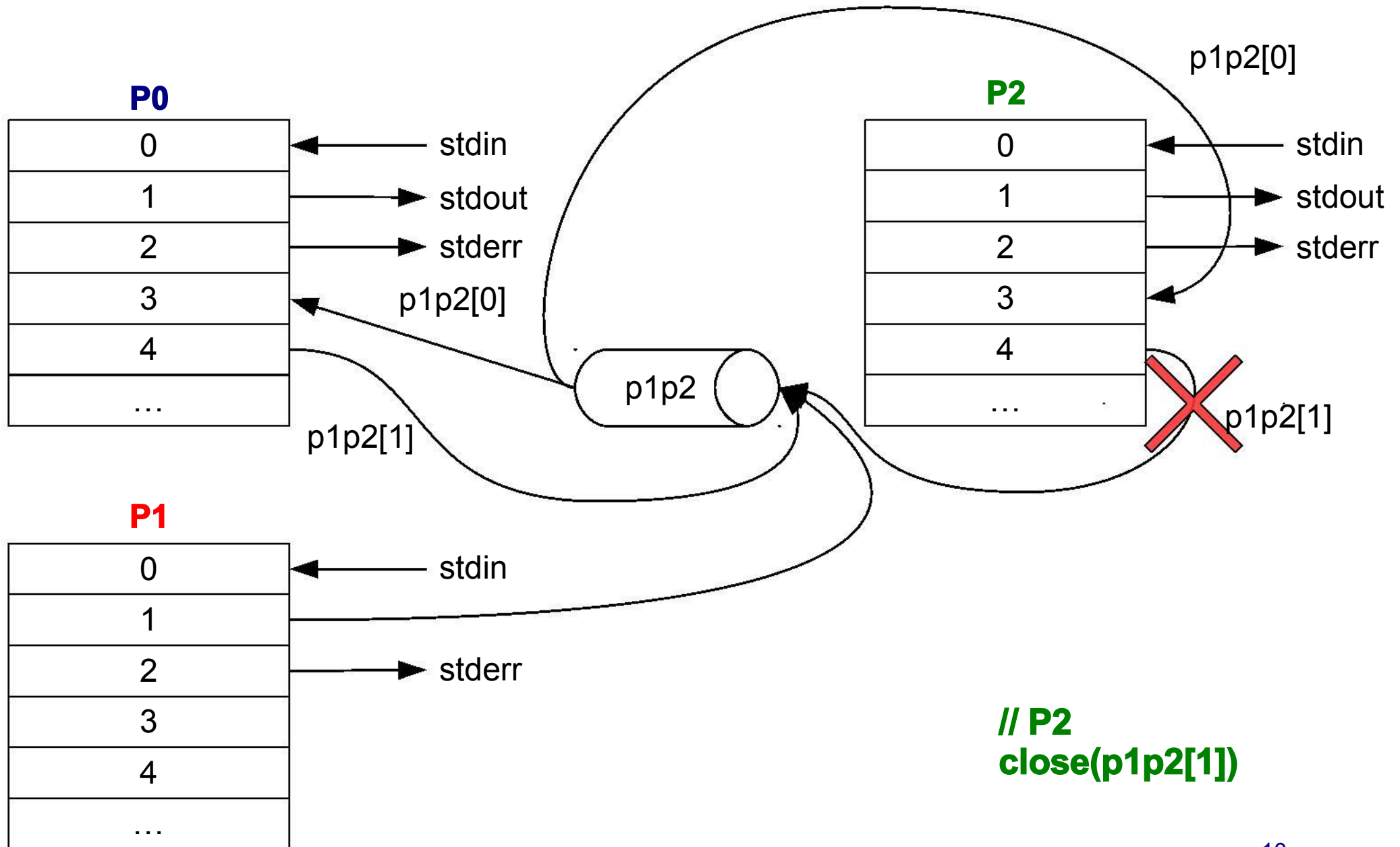
Esercizio 1 – Schema soluzione 7/15



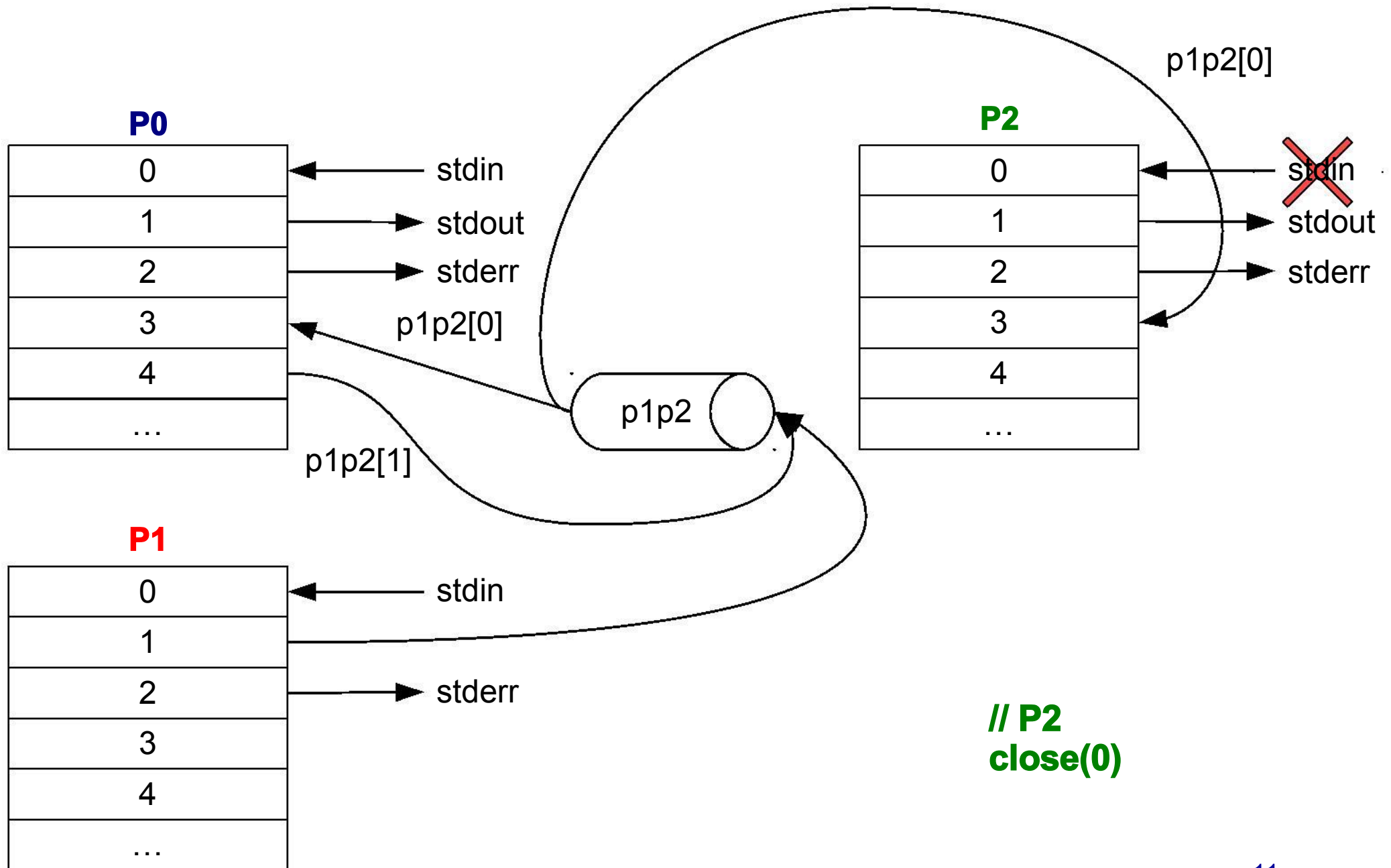
Esercizio 1 – Schema soluzione 8/15



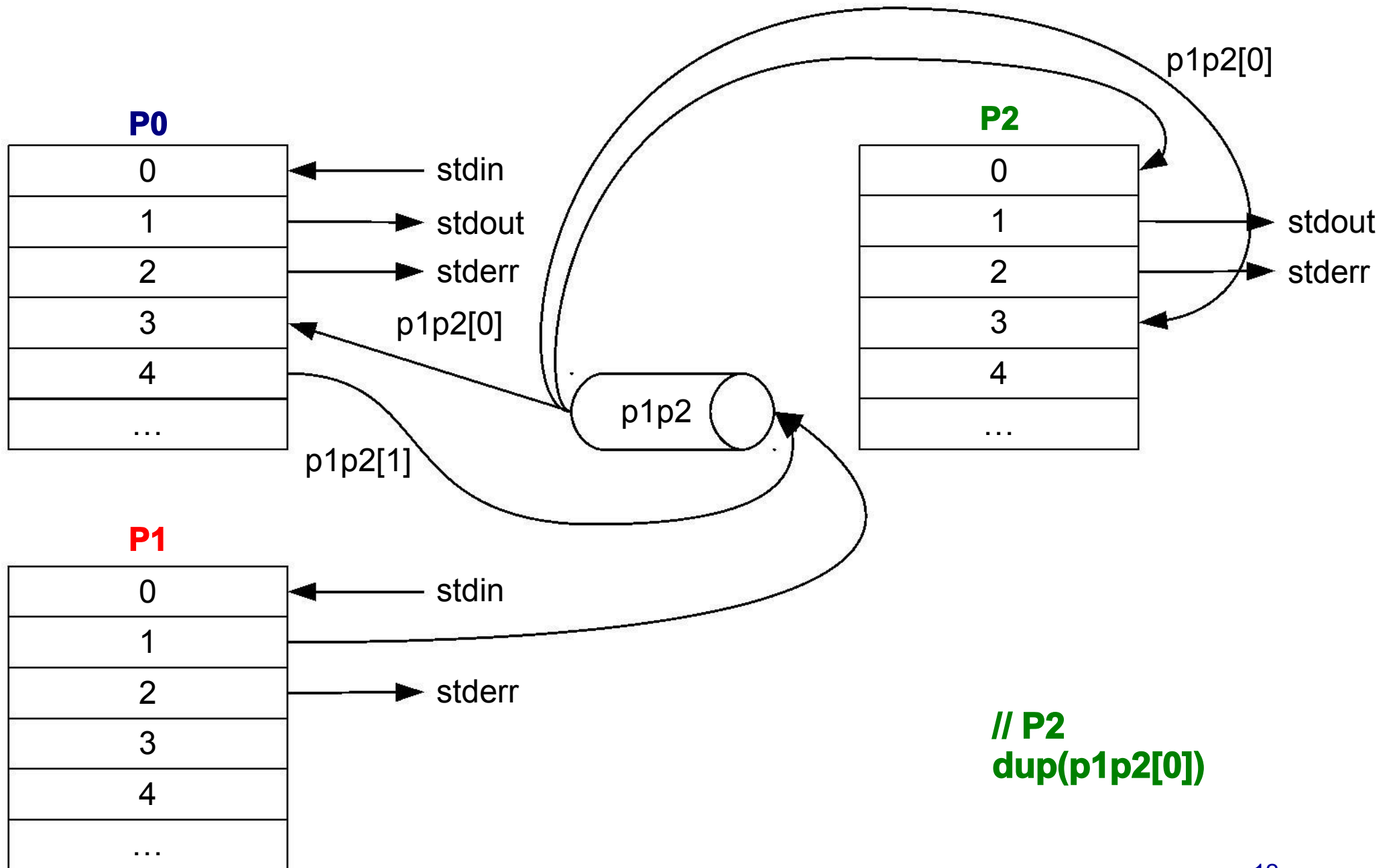
Esercizio 1 – Schema soluzione 9/15



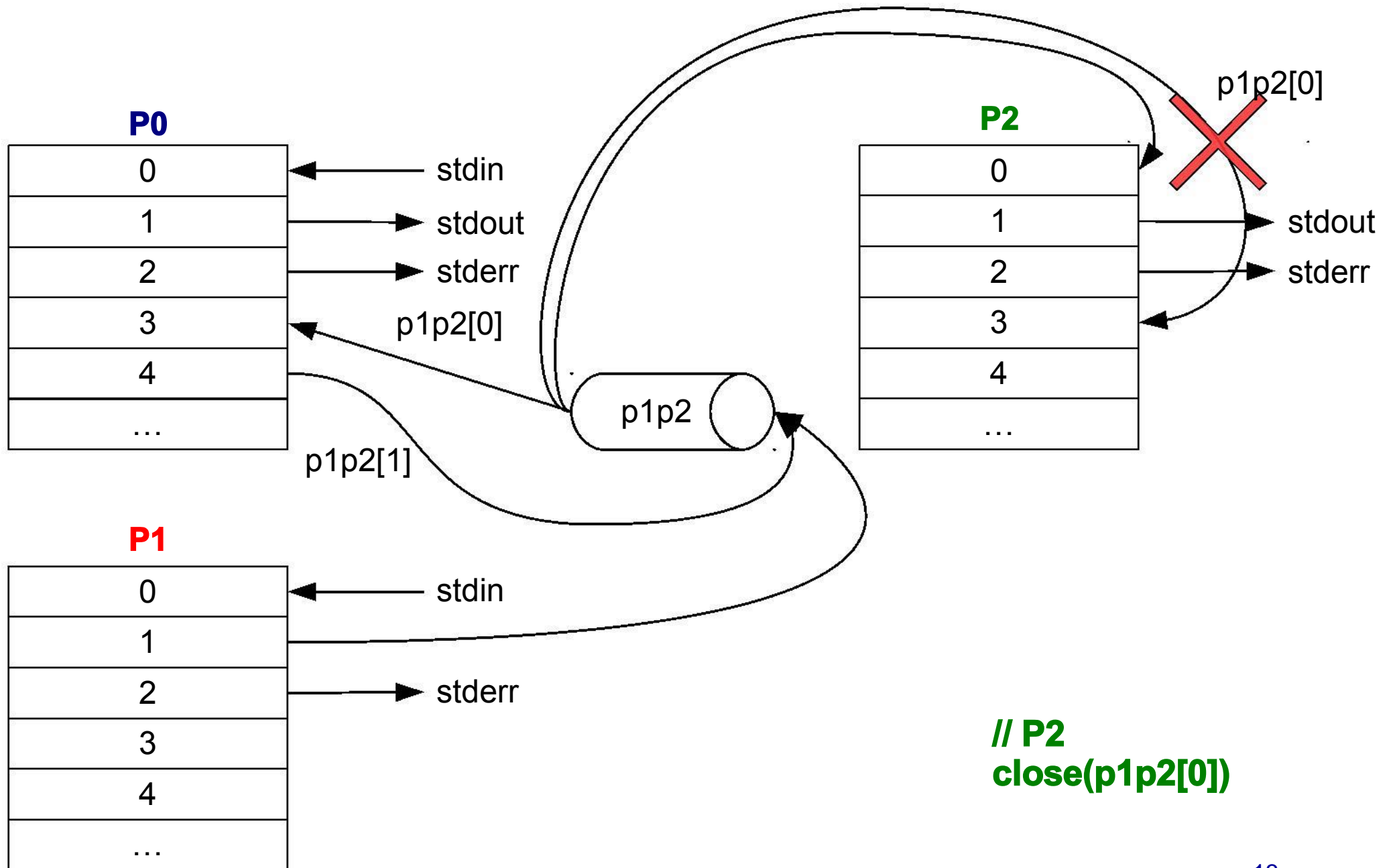
Esercizio 1 – Schema soluzione 10/15



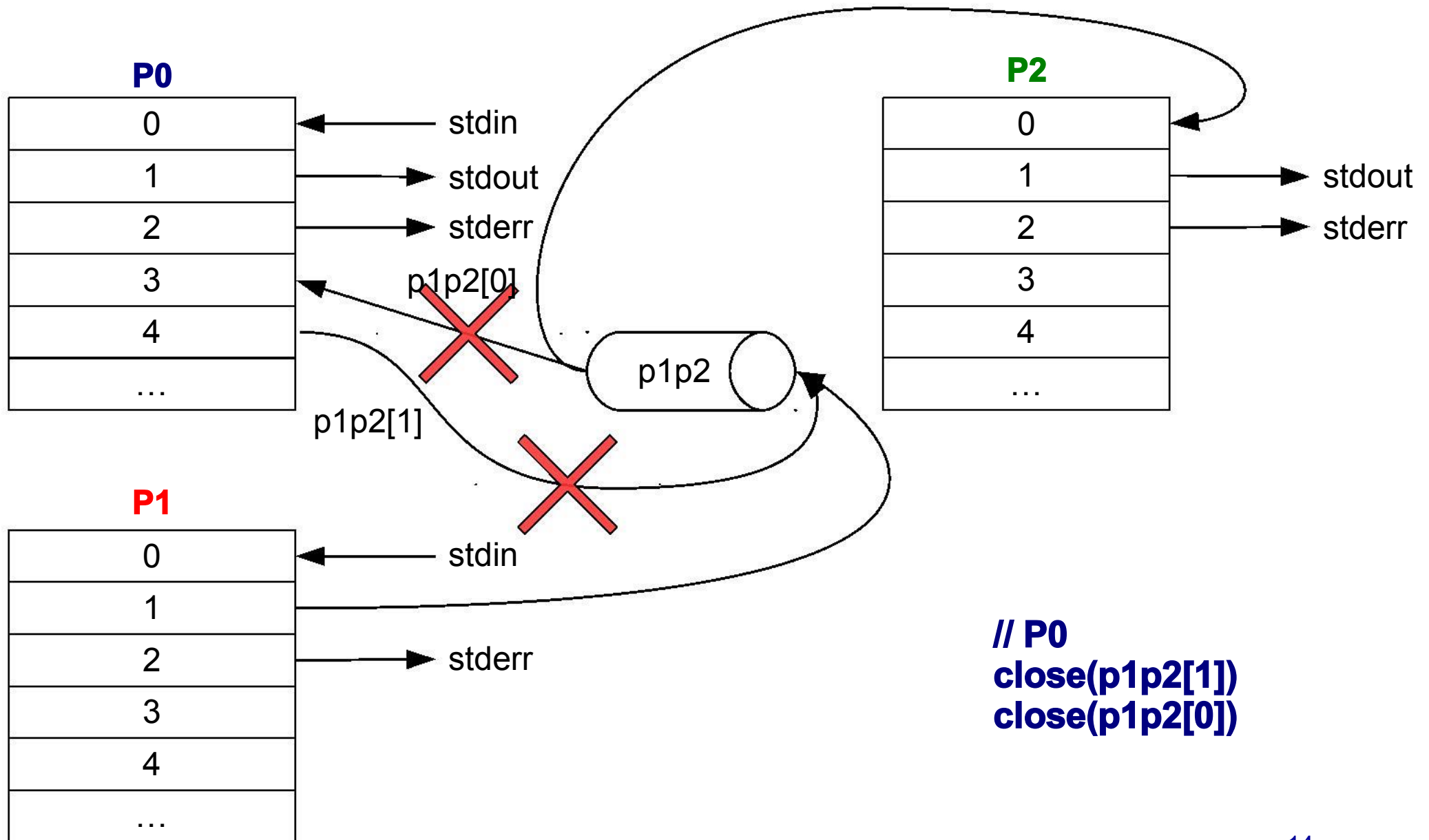
Esercizio 1 – Schema soluzione 11/15



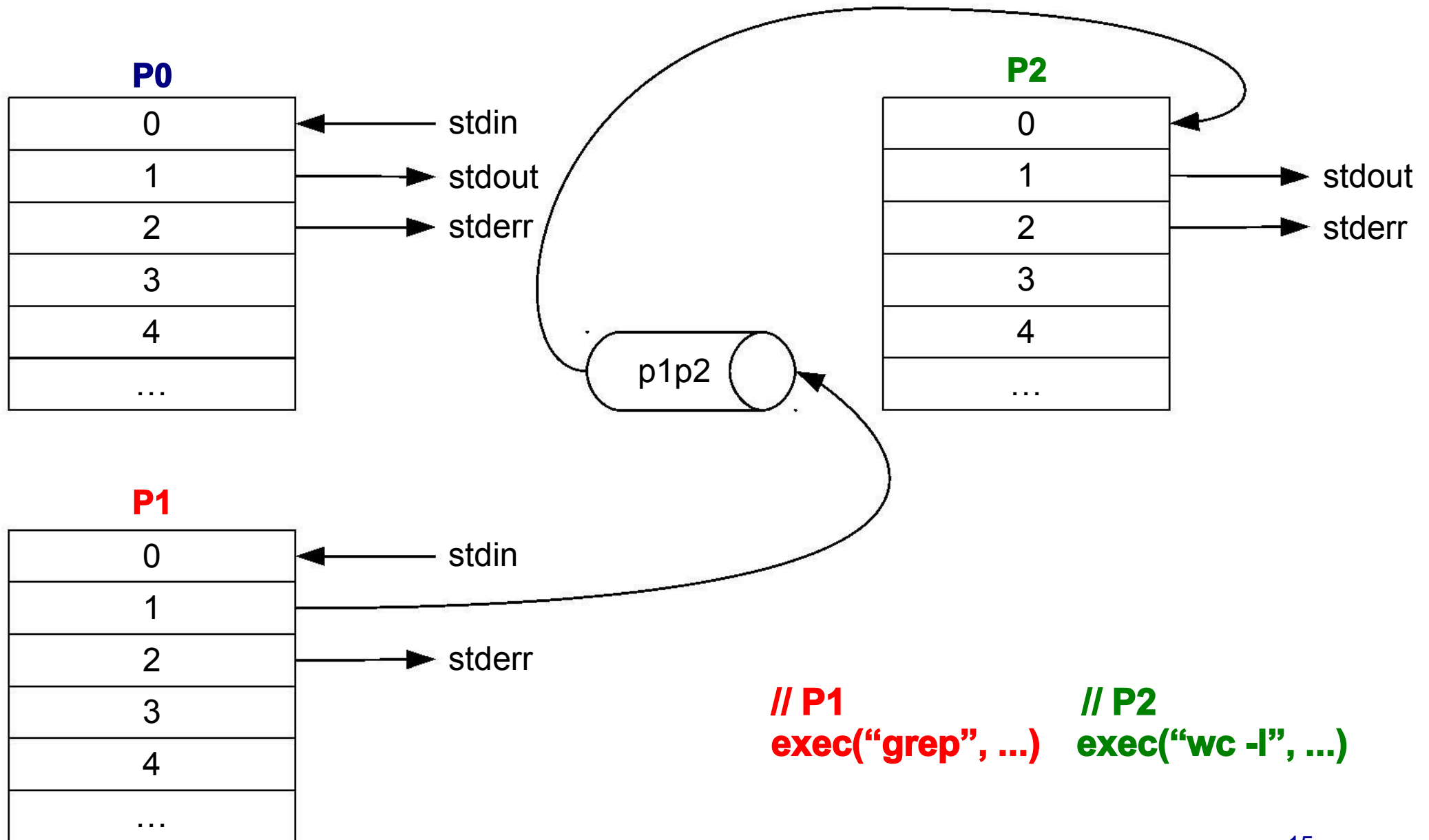
Esercizio 1 – Schema soluzione 12/15



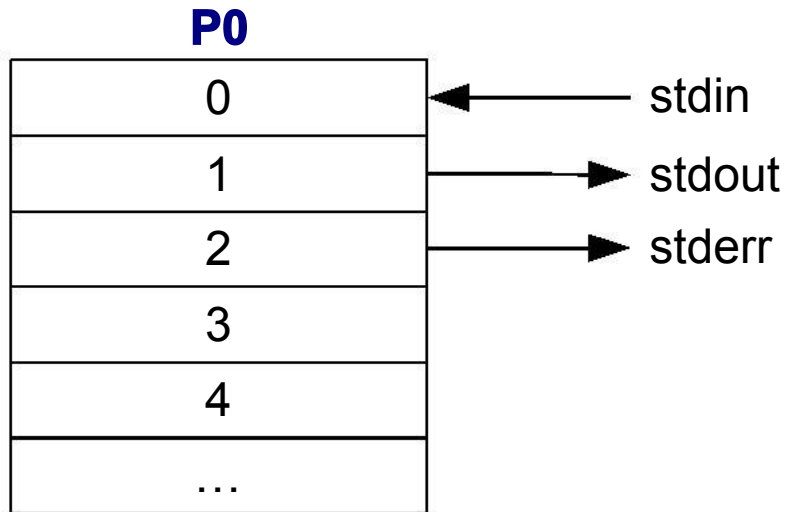
Esercizio 1 – Schema soluzione 13/15



Esercizio 1 – Schema soluzione 14/15



Esercizio 1 – Schema soluzione 15/15



E se P0 non avesse chiuso la pipe?