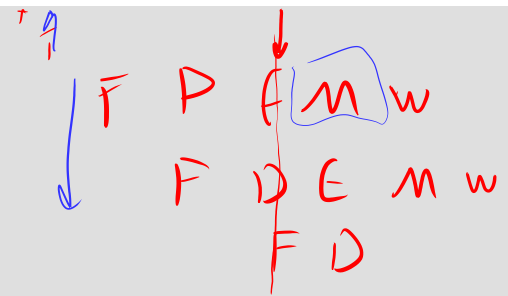
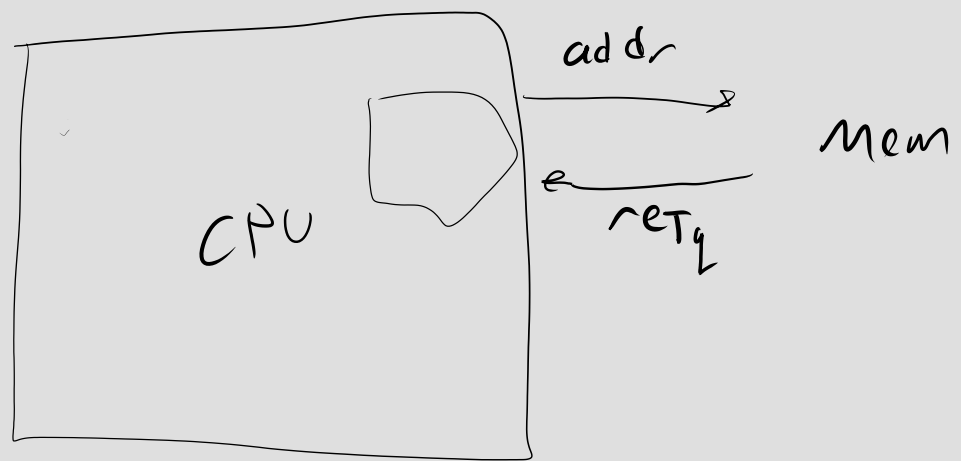


precise
in terrupis



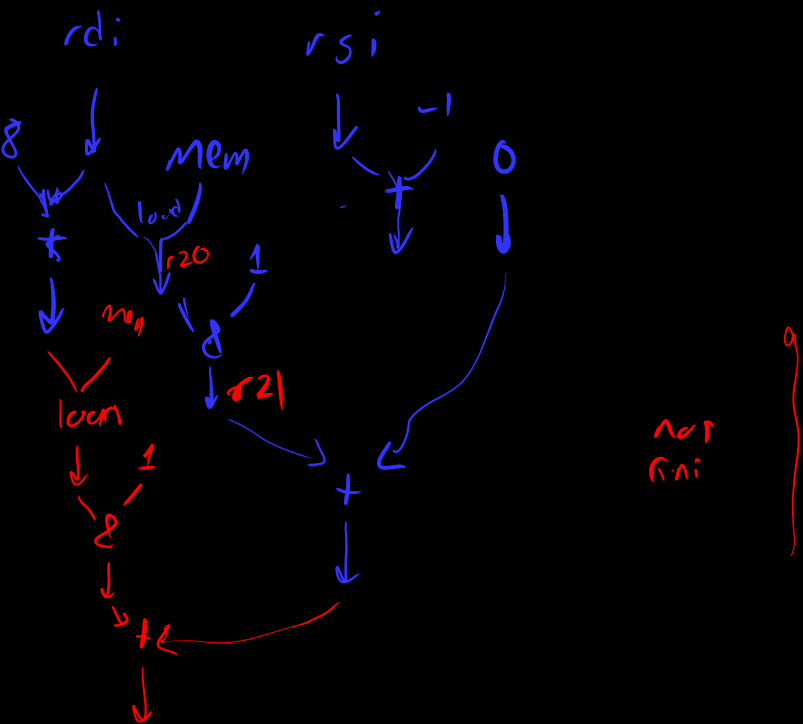
Nops

add 8 to rsp
turn Mem[^{old}rsp] to PC



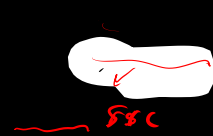
load
rsp → PC
rsp += 8

Out-of-order Execution



1 rsi → 19
2
3 rax → 10

1. reg renaming
 goal: set once



load [rdi] → r20
 ld r20 → r21
 rax + r21 → r22

2. retiring instruction

"done" inst dst → visible
compar
state

instr

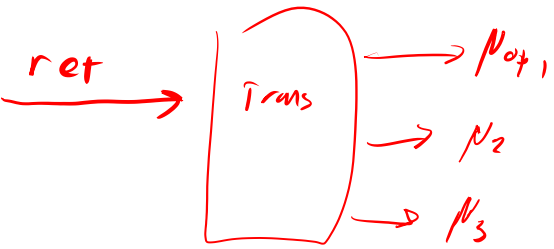
— not yet fetched

— in use

- ~~not~~ new
- not ~~new~~

— retired

- ~~new~~ known



r_{138}
 cc_{17}
 -

