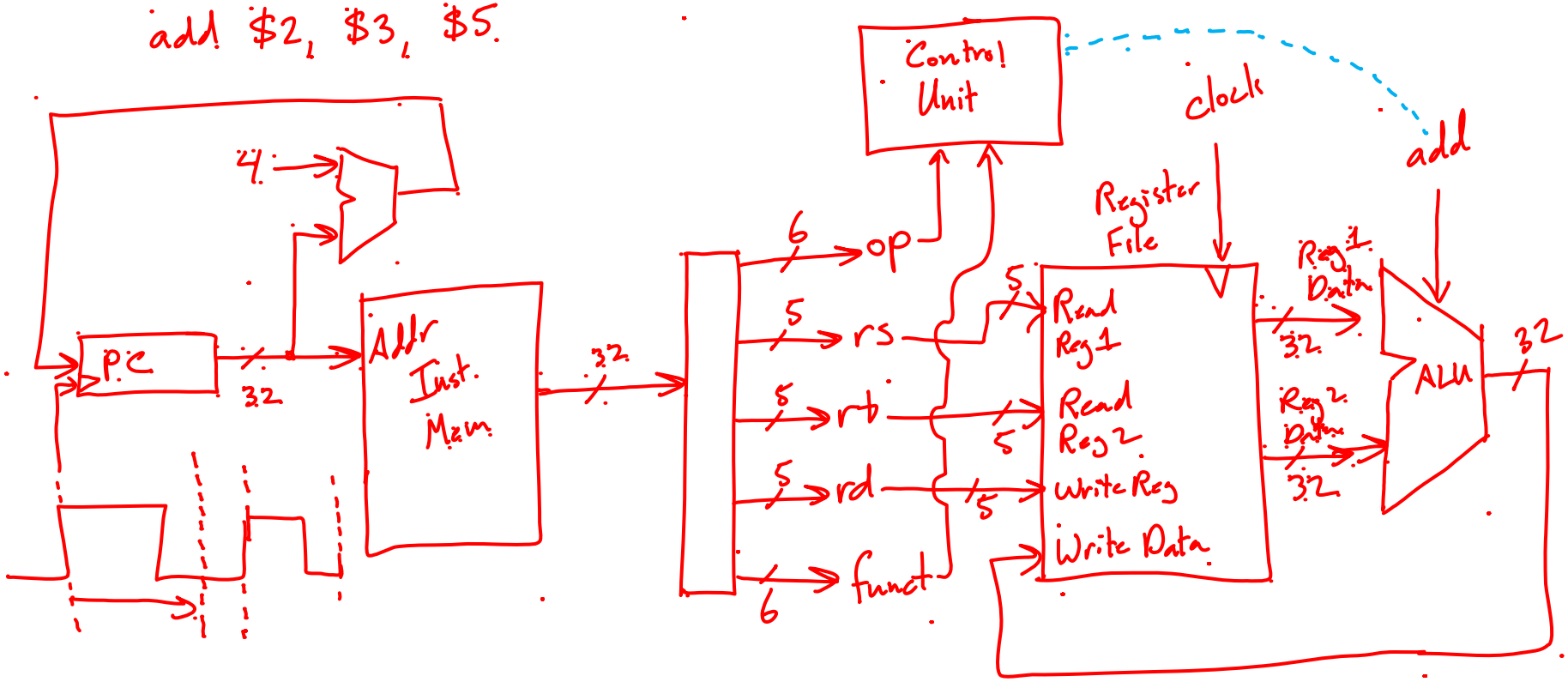
Add Instruction

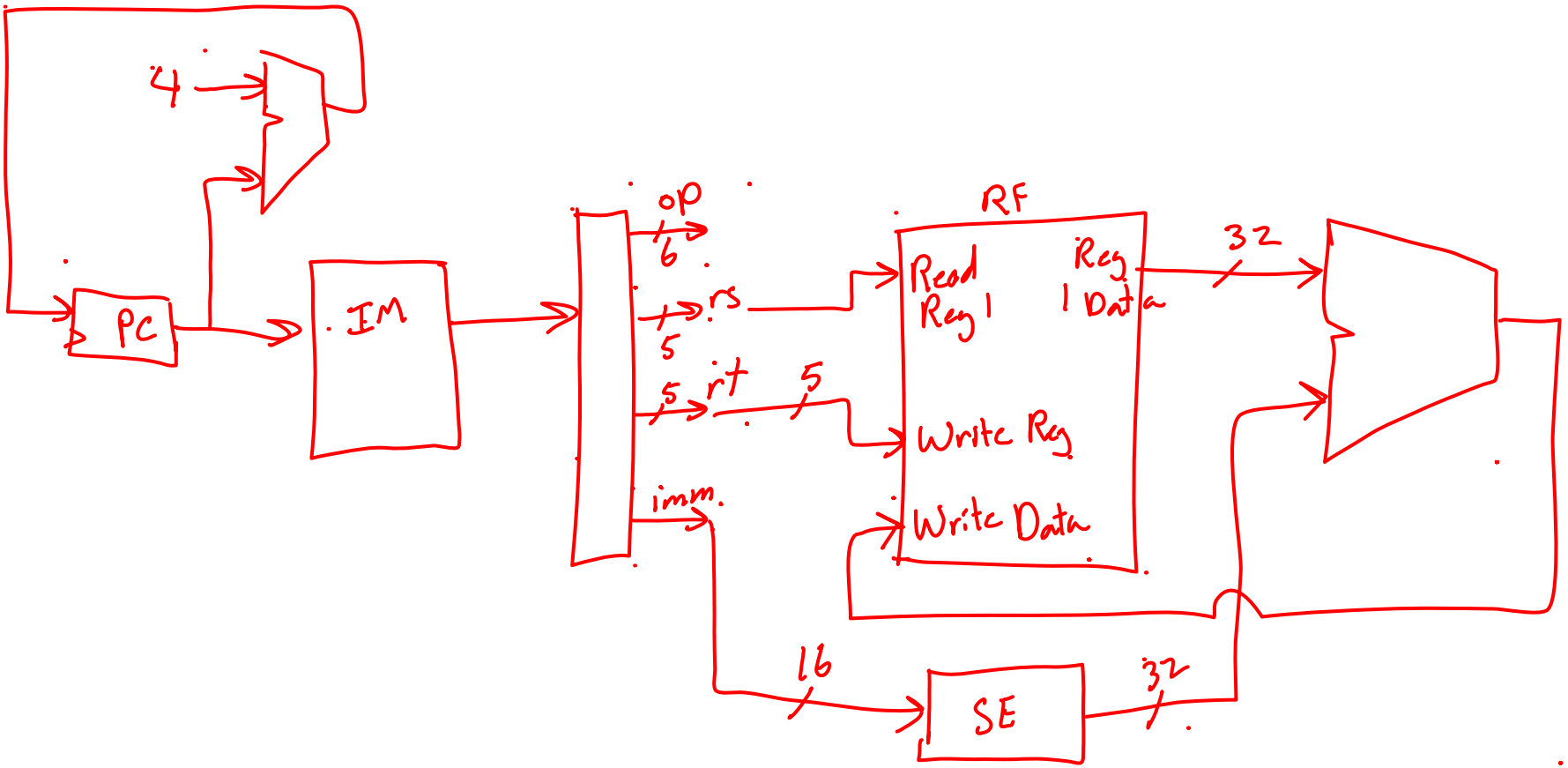
"Add" Instruction

Operation	rs	rt	rd	shamt	funct	# meaning
add	3	5	2	0	32	# $2 <- $3 + $5

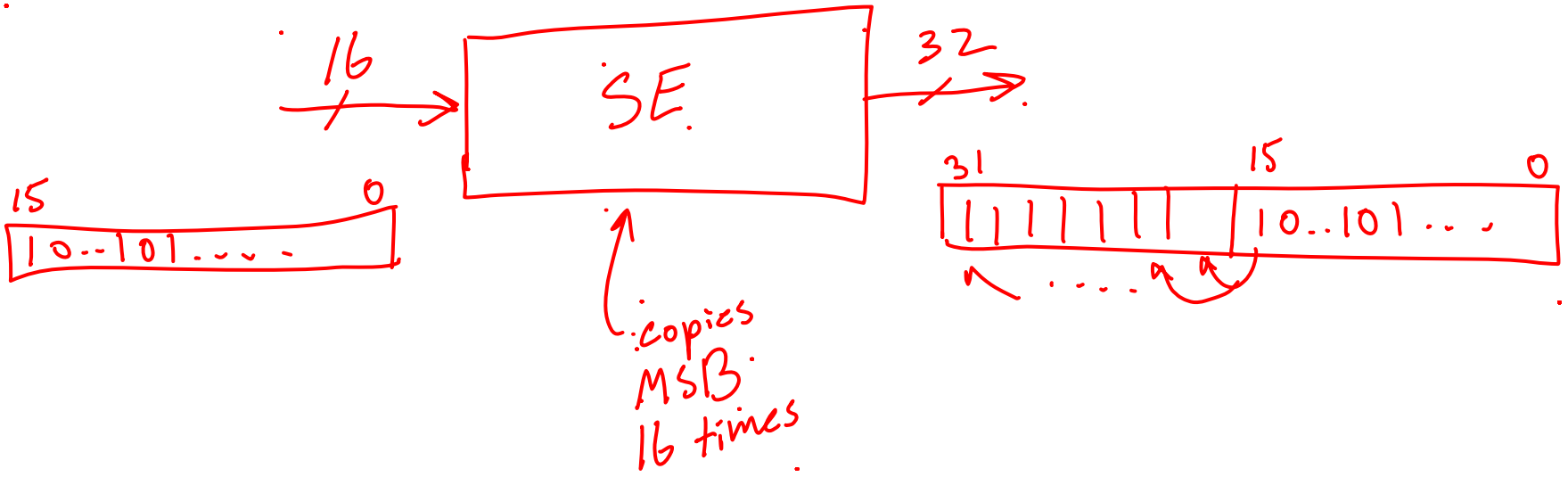


“Addi” Instruction

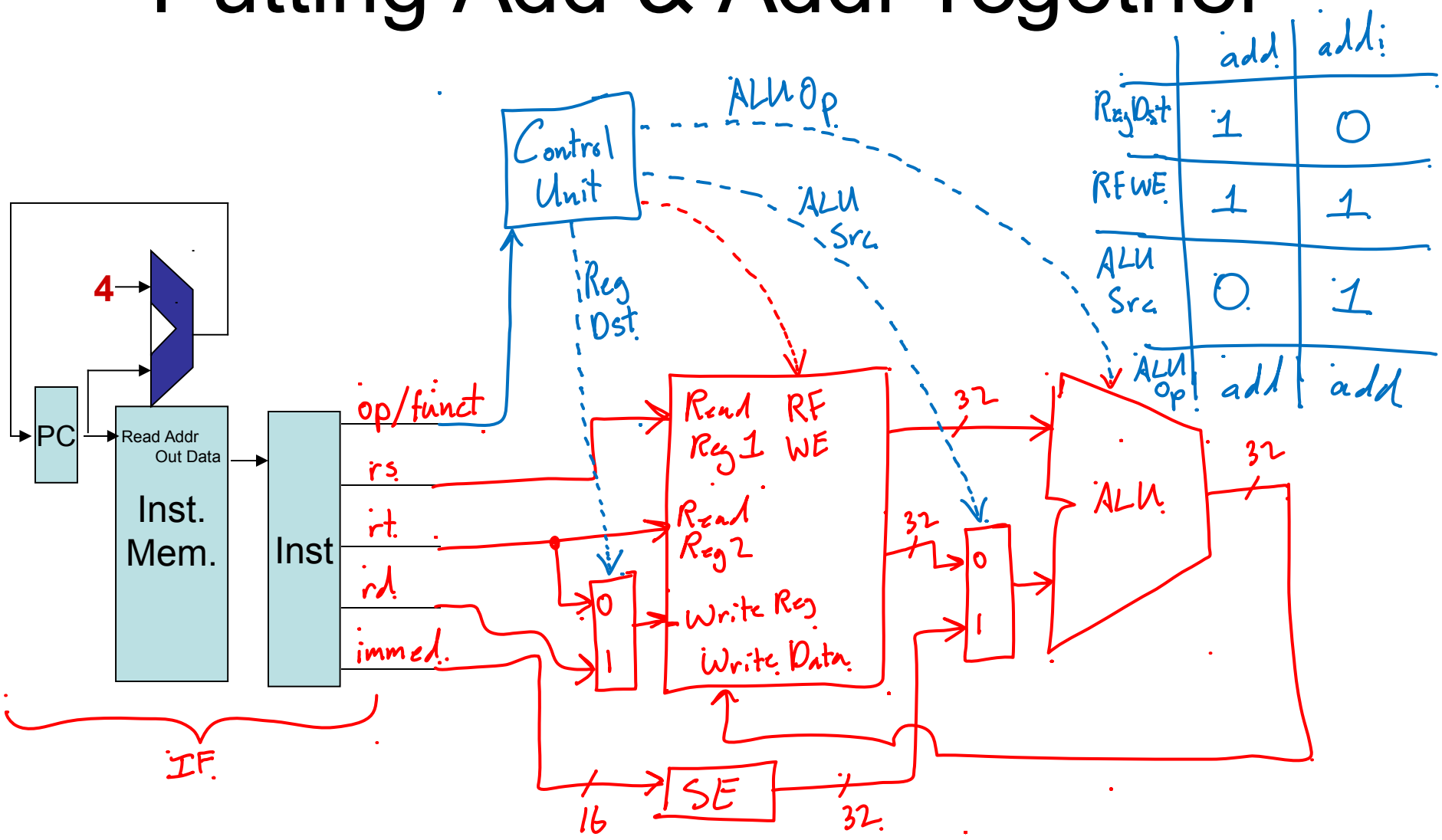
Operation	rs	rt	imm	# meaning
addi $5,$3,6	3	5	6	# $5 <- **$3** + 6



Sign Extension

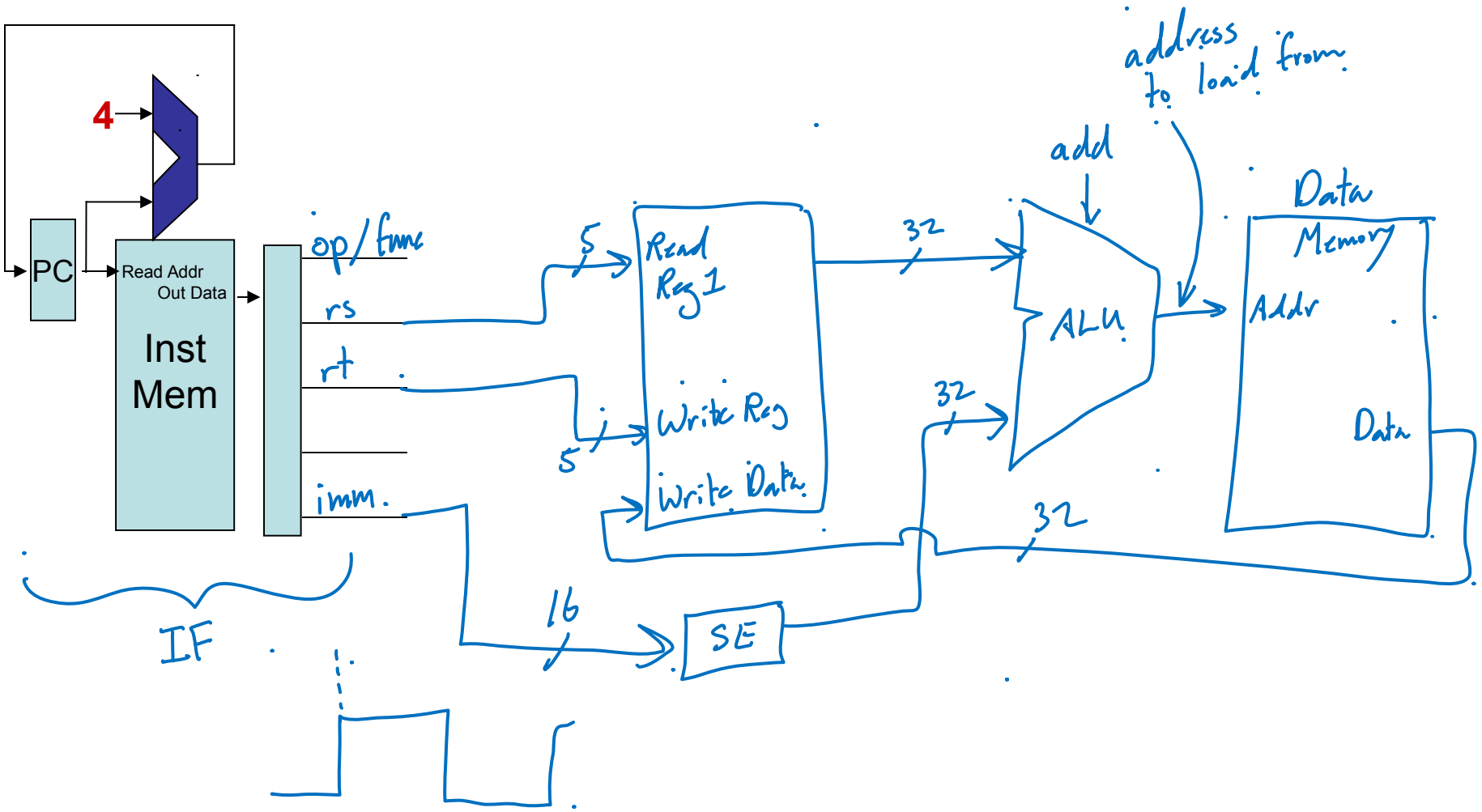


Putting Add & Addi Together



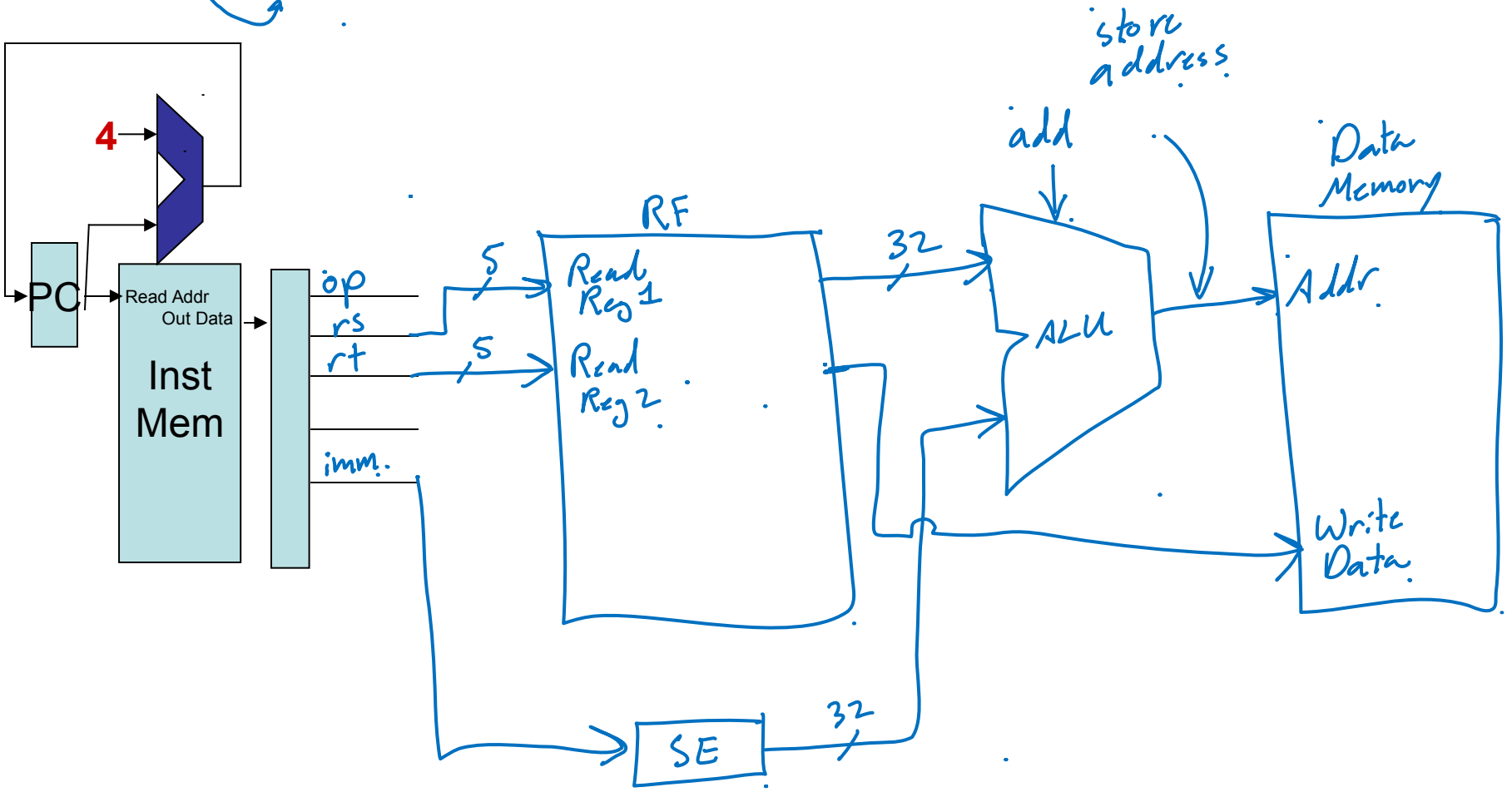
Load Operation

Operation	rs	rt	imm	# meaning
lw $5,8($3)	3	5	8	# $5 <- M[$3 + 8]

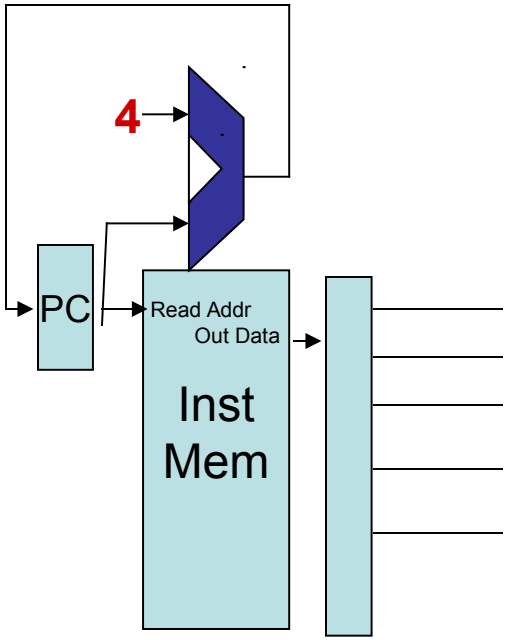


Store Operation

Operation	rs	rt	imm	# meaning
sw $5,8($3)	3	5	8	# **M[$3+8]** <- $5



Putting load/store together



lab3 file.asm

Interactive

mips> c ← clear register

mips> d

pc = 0
$a0 = 0 $a1 = 0 .....

mips> s ← step 1 inst.

mips> s 5 ← step 5 inst.

mips> m 100 105

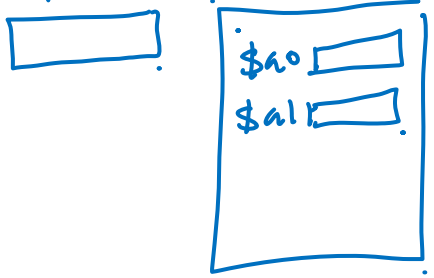
[100] = 0
[101] = 0

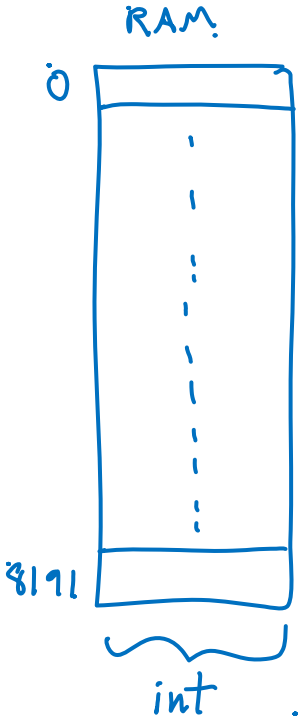
r ← run to end

mips> h ← help

q ← quit

-Lab 3 (10/25/14) Sat.





Script

lab3 file.asm

optional script file

c
d
s
r
q

Machine Speed

- What determines the clock rate of a machine? _____
- Making something bigger makes it:
  1.
  2.