

$\underline{\underline{+5}}$
 $\begin{matrix} a0 & a1 & a2 & a3 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ f(a, b, c, d) \{ \\ \quad \text{return func(func(a, b), c, d);} \\ \} \end{matrix}$

-pickup Hw1

-midterm
outline on PolyLearn

-green notecard



0. save \$s0

1. add \$s0,
\$a2, \$a3

f:

addi \$sp, \$sp, -12

sw \$ra, 0(\$sp)

sw \$a2, 4(\$sp)

sw \$a3, 8(\$sp)

jal func

lw \$a2, 4(\$sp)

lw \$a3, 8(\$sp)

add \$a1, \$a2, \$a3

add \$a0, \$v0, \$0

arguments
for second
call

jal func

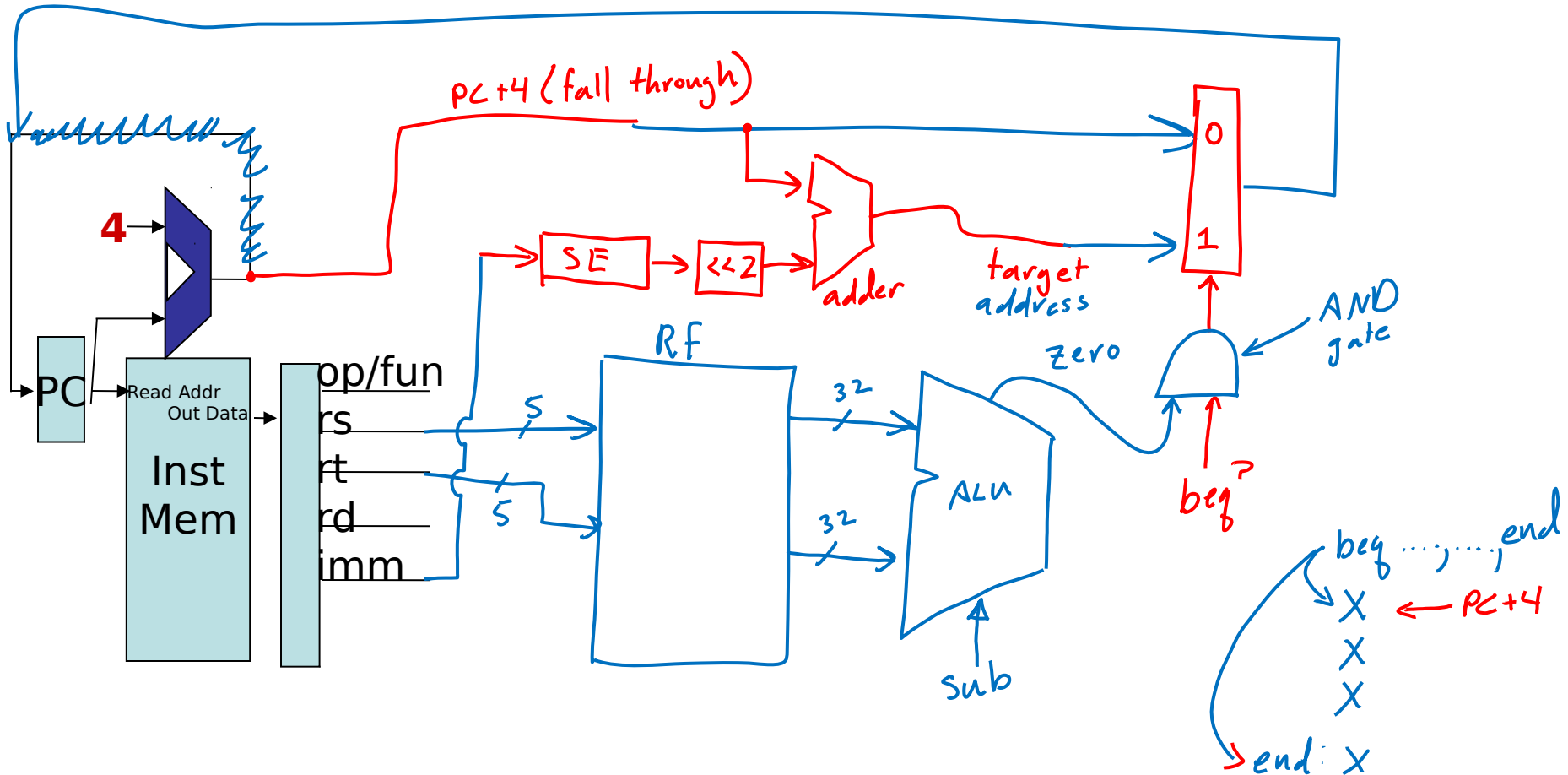
lw \$ra, 0(\$sp)

addi \$sp, \$sp, 12

jr \$ra

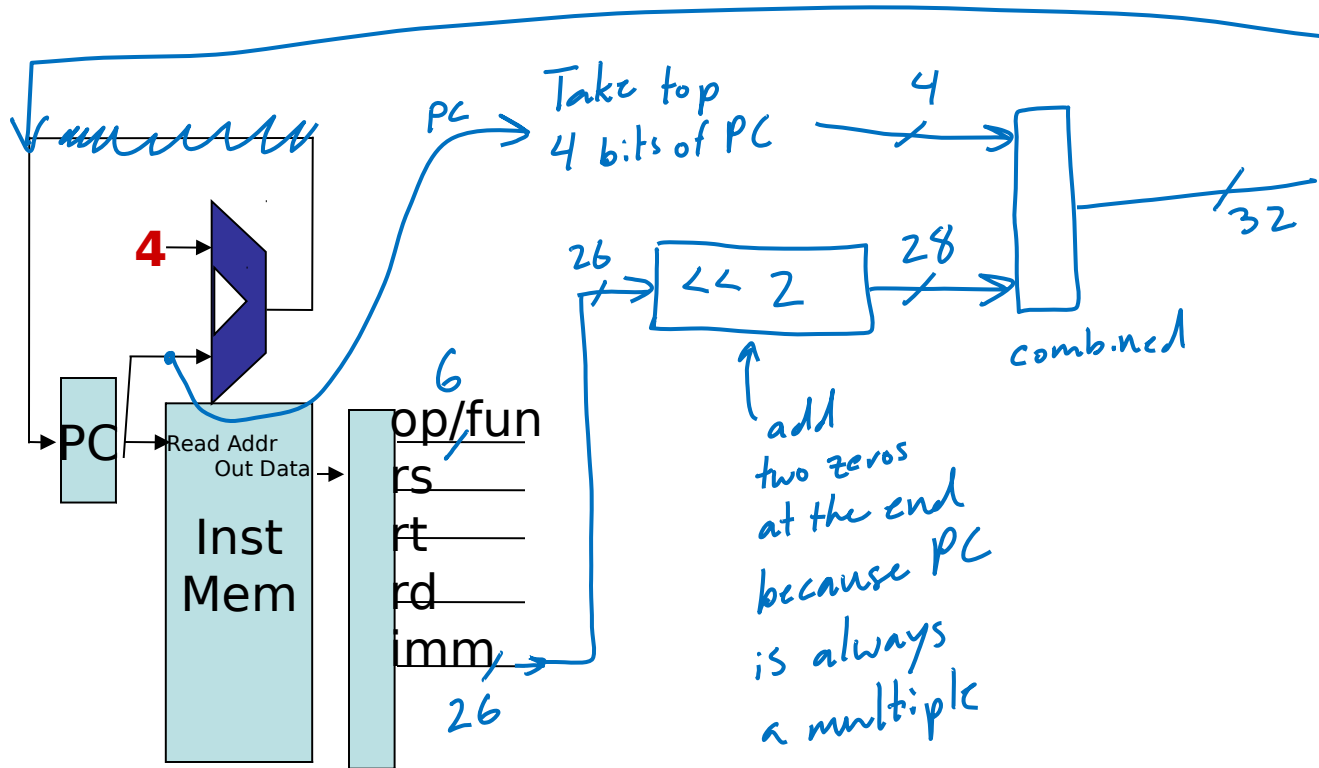
"beq" Instruction

Operation	rs	rt	imm	# meaning
Beq \$3,\$5,lp	3	5	6	# if (\$3 == \$5) goto lp



"j" Instruction

Operation	Target address	# meaning
J loop	0x0174837	# goto loop



The single-cycle processor

(datapath)

↑ all instructions finish in 1 clock cycle

