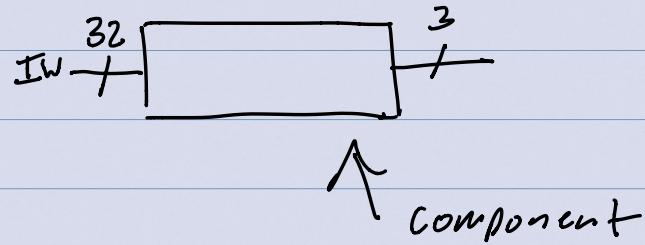


analyze-decode



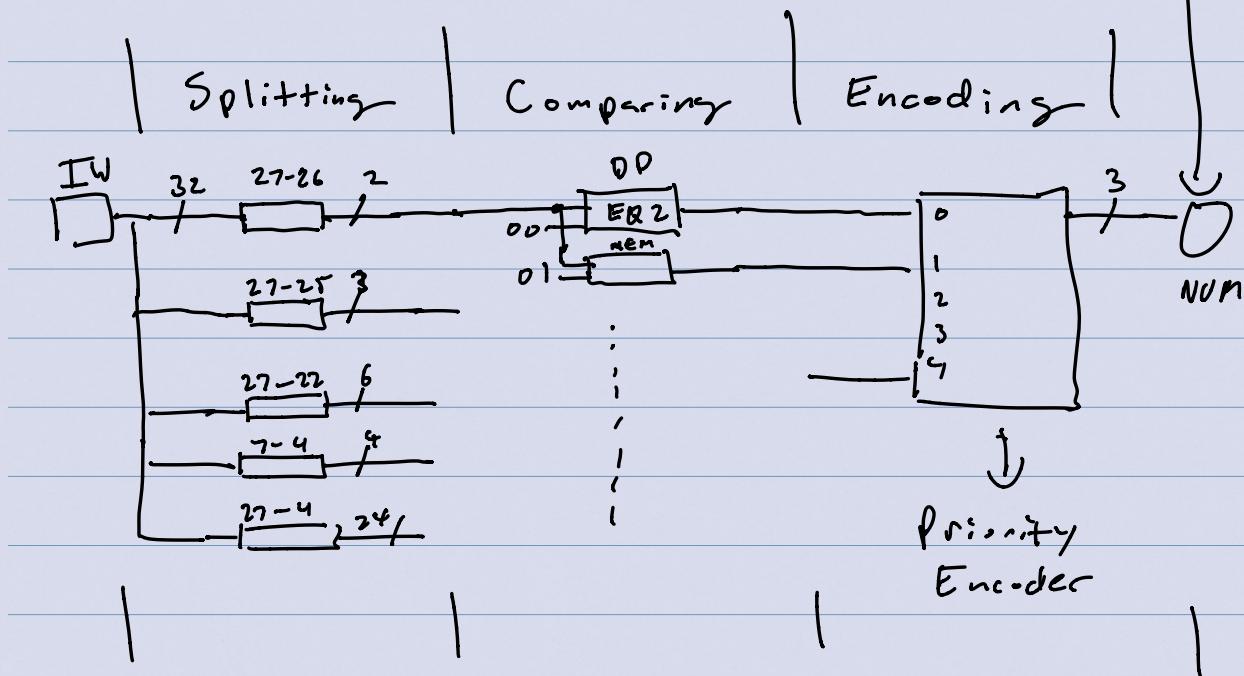
000	0	DP
001	1	MEM
010	2	Branch
011	3	MUL
100	4	BX

Splitters

Comparators (EQ)

Priority Encoder

3 parts

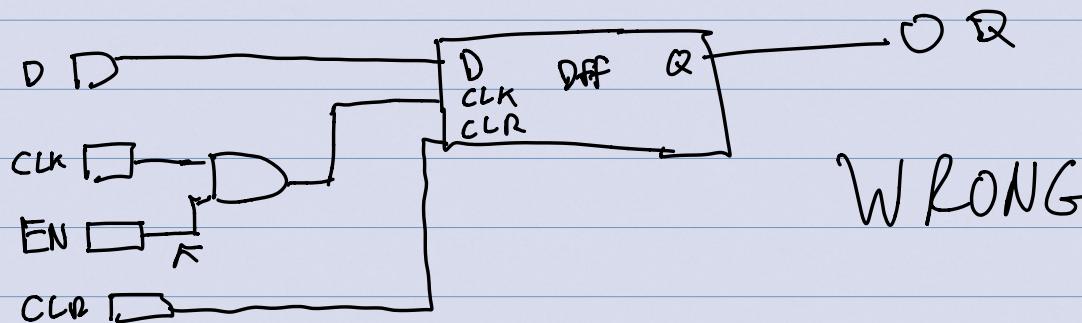


Register with Enable

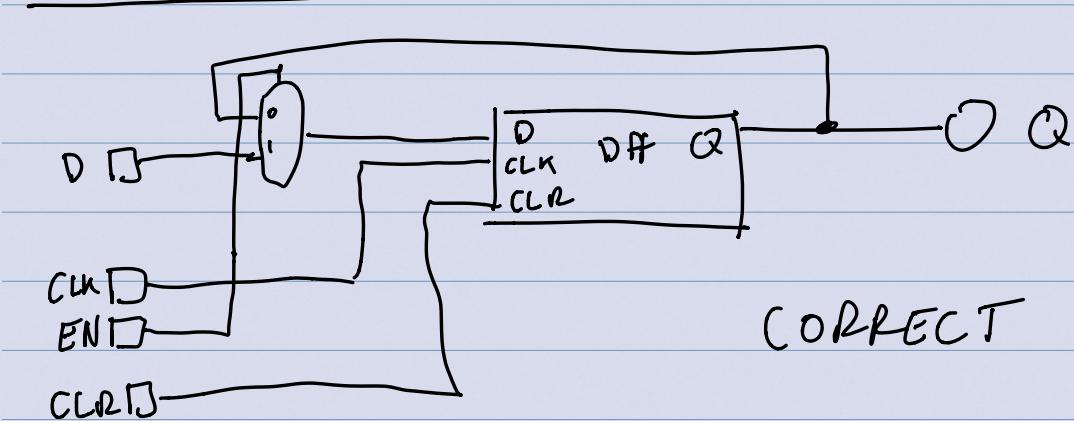
8bit Reg



1 bit D flipflop



WRONG



CORRECT

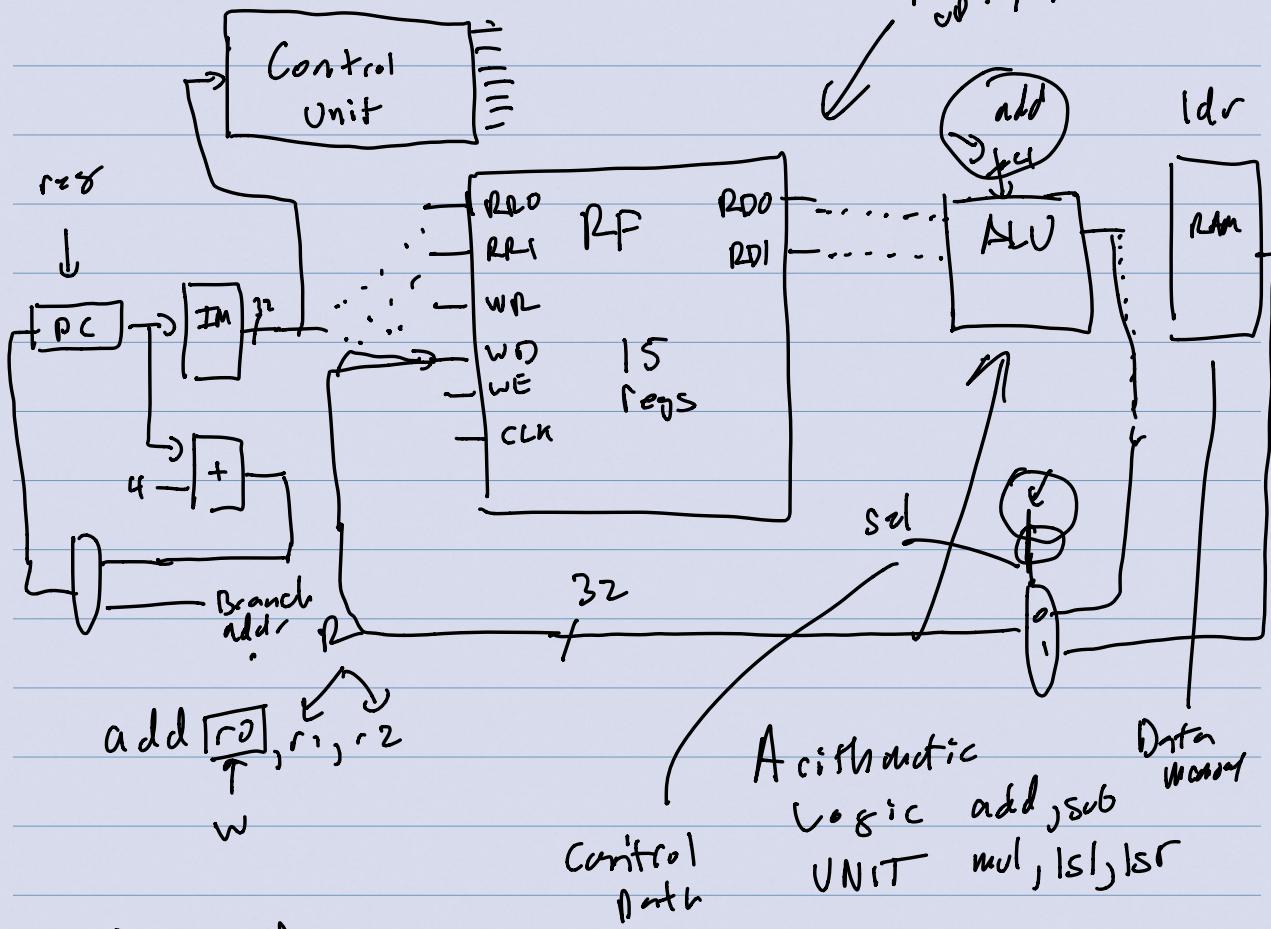
Project 06

ARM Processor Components

Processor state: registers

: memory (RAM)

Registers → Register File ^{read up to two values}

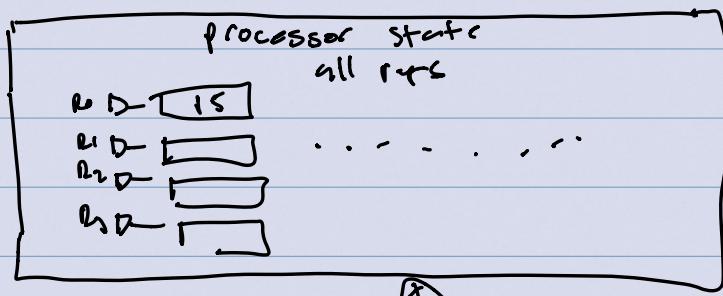
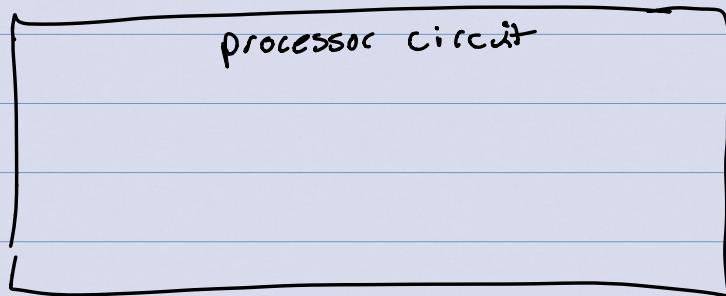


Data Path

Control Path

High level

processor-main circuit



Programs

Main:

```
mov r0, #2  
mov r1, #2  
mul r2, #3  
add r3, #4  
bl quadratic-s ←  
add r0, r0, #0 ← End function
```

New setup does not use
global
(only for as)

quadratic-s:

```
mul r12, r0, r0  
mul r1, r12, r1  
mul rL, r0, r2  
add r2, r1, rL  
add r0, r0, r2  
bx lr
```

unchanged

