

Stage Computation: Arith/Log. Ops

	OPI rA, rB	
Fetch	$\text{icode:ifun} \leftarrow M_1[\text{PC}]$ $\text{rA:rB} \leftarrow M_1[\text{PC}+1]$ $\text{valP} \leftarrow \text{PC}+2$	Read instruction byte Read register byte Compute next PC
Decode	$\text{valA} \leftarrow R[\text{rA}]$ $\text{valB} \leftarrow R[\text{rB}]$	Read operand A Read operand B
Execute	$\text{valE} \leftarrow \text{valB OP valA}$ Set CC	Perform ALU operation Set condition code register
Memory		
Write back	$R[\text{rB}] \leftarrow \text{valE}$	Write back result
PC update	$\text{PC} \leftarrow \text{valP}$	Update PC

- Formulate instruction execution as sequence of simple steps
- Use same general form for all instructions