

# CS429 ISA Help Sheet

## Y86 ISA

Byte	0	1	2	3	4	5
nop	1	0				
halt	0	0				
rrmovl rA,rB	2	0	rA	rB		
irmovl V,rB	3	0	F	rB	V	
rmmovl rA,D(rB)	4	0	rA	rB	D	
mrmovl D(rB),rA	5	0	rA	rB	D	
OP1 rA,rB	6	fn	rA	rB		
jXX Dest	7	fn	Dest			
cmovXX rA,rB	2	fn	rA	rB		
call Dest	8	0	Dest			
ret	9	0				
pushl rA	A	0	rA	F		
popl rA	B	0	rA	F		

addl	6	0
subl	6	1
andl	6	2
xorl	6	3

jmp	7	0
jle	7	1
jl	7	2
je	7	3
jne	7	4
jge	7	5
jg	7	6

## Registers

%eax	0	%esi	6
%ecx	1	%edi	7
%edx	2	%esp	4
%ebx	3	%ebp	5

**Multiples of 16**

1	16	5	80	9	144	13	208
2	32	6	96	10	160	14	224
3	48	7	112	11	176	15	240
4	64	8	128	12	192	16	256