

Common NASM Mnemonics used in our Labs

Data Transfer

move	mov	A, B
load effective address	lea	A, B
push reg onto stack	push	A
pop reg off of stack	pop	A

Arithmetic

addition	add	A, B	
subtraction	sub	A, B	
multiply	imul	A	assumes RDX:RAX
divide	idiv	A	assumes RDX:RAX
propagate sign	cqo		affects RDX:RAX

Logic

compare	cmp	A, B
not	not	A
and	and	A, B
or	or	A, B
exclusive or	xor	A, B

Flow Control

loop back while rcx>0	loop	address tag
increment by 1	inc	A
decrement by 1	dec	A
unconditional branch	jmp	address tag
jump if equal	je	address tag
jump if not equal	jne	address tag
jump if zero	jz	address tag
jump if not zero	jnz	address tag
jump if low	jl	address tag
jump if not low	jnl	address tag
jump if greater	jg	address tag
jump if greater or equal	jge	address tag
jump if overflow	jo	address tag
jump if no overflow	jno	address tag

Transfer Control

call a procedure	call	procedure_name	
return from procedure	ret		
store to stack	push	register_name	updates RSP
load from stack	pop	register_name	updates RSP

Elasticity

no operation	nop	
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