CPE 185 Lab 1 Hand ASM Sheet
David Quintanilla

Instruction: Mov DX, 0120

Address:	CS		100	Operation: Mov	Dest.: DX	Source: 120

immediate to register (alternate encoding)

Instruction Format	1011 w reg : immediate data		
	w=1	reg DX=010	data=2001h

Binary:	1011	1010

Hex: BA2001

Instruction: Mov AX, [0200]

Address:	CS		103	Operation: Mov	Dest.: AX	Source: [0200]

Memory to AX

Instruction Format	1010 001w "full displacement"
	w = 1

Binary:	1010	0001	0002h
	A	1	2

Hex: A10002

Instruction: Mov BX [0204]

Address:	CS	: 0106	Operation: Mov	Dest.: BX	Source: [0204]

Instruction Format	1000 101w : mod reg rm: BX		
	w = 1	mod = 00	reg = 011	r/m = 110

Binary:	1000	1011	0001	1110	0204h

Hex: 8B1E0402

Instruction: Sub AX, BX

Address:	CS	10A	Operation: Sub	Dest.: AX	Source: BX

Instruction Format	0010 100w : 11 AX, BX		
	w = 1	reg1 = 01	reg2 = 000

Binary:	0010	1001	1101	1000

Hex: 29D8

Instrcution JGE 0116

Address	CS	010C	Operation JGE	Dest	{114}

Instruction Format	0111 tttn : 8-bit displacement
	tttn = 1101

Binary	111	1101

Hex 7D06