

# Assembly Language

## Assignment 4.A

- Individual task.
- **Due:** Next section (one night before if you submit by email)

**(10 points) Use the following variable definitions to answer the following:**

```
.data
```

```
var1 SBYTE -4,-2,3,1
```

```
var2 WORD 1000h,2000h,3000h,4000h
```

```
var3 SWORD -16,-42
```

```
var4 DWORD 1,2,3,4,5
```

a) For each of the following statements, state whether or not the instruction is valid:

1. `mov ax,var1`
2. `mov ax,var2`
3. `mov eax,var3`
4. `mov var2,var3`
5. `movzx ax,var2`
6. `movzx var2,al`
7. `mov ds,ax`
8. `mov ds,1000h`

b) What will be the hexadecimal value of the destination operand after each of the following instructions execute in sequence?

```
mov al,var1          ; al=  
mov ah,[var1+3]     ; ah =
```

c) What will be the value of the destination operand after each of the following instructions execute in sequence?

```
mov ax,var2          ; ax=  
mov ax,[var2+4]     ; ax=  
mov ax,var3          ; ax=  
mov ax,[var3-2]     ; ax=
```