### CS 271 Computer Architecture and Assembly Language

#### Self-Check for Lecture#13

#### Solutions are posted

Here’s a complete nonsense program, with totally fake addresses shown in the leftmost column. The idea is to trace the execution, showing every change in the indicated registers and memory.

All numeric values should be shown as 2-digit hex. (Well ... ESP has a 3-digit hex once in a while.)

The first two instructions have been traced for you.

```plaintext
.data
80       x  DWORD  10 ; 2-digit hex is 0A
84       y  DWORD  7 ; 2-digit hex is 07
88       z  DWORD  ?

.code
main    PROC ; start
        10  35  A0  0  0  0  0  0
        15  9C  0A
        1A  98  07

1A       push  OFFSET z
1F       call  whatzit
24       mov  eax,z
29       exit
main     ENDP

whatzit PROC
        40  push  ebp
        45  mov  ebp,esp
        4A  mov  edi,[ebp+8]
        4F  mov  eax,[ebp+16]
        54  mov  ebx,eax
        59  sub  ebx,[ebp+12]
        5E  mul  ebx
        63  mov  [edi],eax
        68  pop  ebp
        6D  ret  12
whatzit ENDP
END main
```