

Lab# 5 Data Sizes

Consider the following program with one mystery immediate 1-byte hexadecimal value 0??h:

```
mov ax, 00035h
mov bl, 0??h
movsx bx, bl
add ax, bx
movzx eax, ax
call print_int
call print_nl
```

This program prints "65462". What is the mystery value? Explain your work/reasoning.

Overflow

For each of the following hex operations say whether the carry bit is set and whether the overflow bit is set. Also, for each operation, if the result were sign-extended into the EAX register, say what `print_int` would print? (Remember that this macro prints **signed** numbers in decimal representation).

1. **2-byte** quantities: 8FF0 + A026
2. **2-byte** quantities: 6043 + 7ABC
3. **1-byte** quantities: F3 + 0D
4. **1-byte** quantities: E5 + 03