

CS 271 Computer Architecture and Assembly Language

Self-Check for Lecture#4

Solutions are posted

Solve each problem using the following data segment:

```
.data
k      DWORD ?
n      DWORD ?
x      DWORD ?
y      DWORD ?
z      DWORD ?
yes    BYTE    "Yes", 0
no     BYTE    "No", 0
maybe BYTE    "Maybe" ,0
```

Assume that variables have been initialized. Write MASM code to implement the following high-level pseudo-code decision structures.

1.

```
if (k < n)
    print (yes);
else
    print (no);
```

2.

```
if (k < n)
    print (maybe);
else
    if (k > n)
        print(no);
    else
        print (yes);
```

3.

```
if ((x < y) AND (y < z))
    print (yes);
else
    print (no);
```

4.

```
if ((x < y) OR (x > z))
    print (no);
else
    print (maybe);
```