

## Tutorial 1

### ECSE210L

1. Calculate the time complexity of the following functions.

A)  $i=0$

```
WHILE (i < n)
    Statement 1
    Statement 2
    i=i+1
```

B)  $i=1$

```
WHILE (i < n)
    Statement 1
    Statement 2
    i=i*2
```

C)  $i=0$

```
WHILE (i < n)
    Statement 1
    Statement 2
    i=i+3;
```

D)  $i=1$

```
WHILE (i < n)
    Statement 1
    Statement 2
    i=i*3;
```

E) for  $i = 1$  to  $n$

```
    Statement 1
```

F) for  $i = 1$  to  $n$

```
    for  $j = 1$  to  $n$ 
        Statement 1
```

```
G) for i =1 to n
    for j= 1 to i
        Statement 1
```

```
H) if (c>k)
    statement 1
else
    for i =1 to n
        statement 1
```