

## WIX1002 Fundamentals of Programming

### Tutorial 3 Flow of Control (Selection)

1. Write statements for each of the following
  - a. Determine whether  $3 \times 8 = 27$ .
  - b. Determine whether an input integer is an odd number or even number.
  - c. Determine whether a character is a capital letter.
  - d. Display two strings in alphabetical order ignoring their case.
  - e. A switch statement that display Sunday, Monday, ..., Saturday if the input is 0, 1, ..., 6.

2. Correct the error for the following statements.

- a.
 

```

if (num1 == num2) {
    System.out.println("Number 1 is equal to number 2.");
}
      
```
- b.
 

```

if (x > y > z) {
    System.out.println("x is the largest number");
}
      
```
- c.
 

```

String s1, s2;
if (s1 == s2) {
    System.out.println("They are equal strings.");
}
else if (s1 != s2) {
    System.out.println("They are not equal strings.");
}
      
```
- d.
 

```

if x > 0 or y > 0; {
    System.out.println("Either x or y is positive");
}
      
```

3. Write the output for the following statements when  $x=9$  and  $y=10$

- a.
 

```

if (x < 10) {
    if (y > 10) {
        System.out.println("*****");
    }
    System.out.println("#####");
    System.out.println("$$$$$");
}
      
```

Output:   
 #####  
 \$\$\$\$
- b.
 

```

if (x < 10) {
    if (y < 10) {
        System.out.println("*****");
    }
    System.out.println("#####");
}
      
```

Output:   
 #####  
 #####

```
System.out.println("$$$$$");
}}
```

c.

```
if (x < 10) {  
    if (y < 10) {  
        System.out.println("*****");  
        System.out.println("#####");  
    }  
    else {  
        System.out.println("$$$$$");  
    }  
}
```

Output: \$\$\$\$

d.

```
if (x > 10) {  
    if (y > 10) {  
        System.out.println("*****");  
        System.out.println("#####");  
    }  
    else  
        System.out.println("$$$$$");  
}
```

Output: no output.

4. Write the java statements that used the if statement to find the biggest number among three given integers.
5. Write the java statements that determine whether the Leap year. A Leap year is divisible by 4 but not by 100. However, a Leap year is also divisible by 400.