

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 displays 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 && x > 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; if (x > 0 || 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("*****"); Output: #####  
else  
System.out.println("#####");  
System.out.println("$$$$$");
```

b.

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