

King Saud University College of Computer and Information Sciences Computer Science Department	
CSC111 Introduction to Programming with Java	First Semester 1440-1441

Tutorial 3

Q1. Show the output of the following code segments:

a.

```

int x, y, z, w;
x = 15;
y = --x;
z = 30;
w = y++;
System.out.println("x = " + x); (x=14)
System.out.println("y = " + y); (y=14)
System.out.println("z = " + z--); (z=30), memory state is 29
System.out.println("w = " + w); (w=14)

```

b.

```

double result = 0;
double x = 15.5;
result = (int)x % (int)4.9 % (int)x + 3.5;
System.out.println("result = " + result); (6.5)

```

c.

```

boolean result;
int x = 1;
int y = -3;
result = (!(true || false && !(y < x)) || false);
System.out.println("result = " + result); (true)

```

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Q2. In each of the following code segment, show the variables values after the last statement execution:

<pre>int a, b, c; double d; a = 20; b = 18; a = a + b / 4; c = a % 3 + 4; d = a / 4.0 + 16 % 4 - 3.5;</pre>	<div>a=20</div> <div>b=18</div> <div>c=4</div> <div>d=2.5</div> <div>a=24</div>
<pre>int sum; int a = 3; int b = 5; double c = 17.4; sum = a + b + (int)c; c /= a; b = ++a; a*= 2 * b + (int)c;</pre>	<div>a=3</div> <div>b=5</div> <div>c=17.4</div> <div>sum=25</div> <div>a=4</div> <div>b=4</div> <div>c=5.8</div> <div>a=52</div>

Q3. Find the errors in the following program:

```
import java.util.Scanner;
public class currencyConverter
{
static const double DollarToRiyal=3.75;
    final
    public static void main (String []args)
    {
Scanner input = new Scanner (System.in);
double dollar, riyal;
DollarToRiyal=3.75;
dollar = input.nextDouble();
riyal = dollar*DollarToRiyal;
char rate = input.next().charAt(0)
    }
}
```

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\Q4. Edit the following program so that it reads the value of all variables (x,y,str) from the user :

```

public class variableSetting
{
public static void main (String[] args)
    {
int x= 10;
double y= 4.5;
double z = x*y;
String str= "Java programming";
    }
}

import java.util.Scanner;
public class Java_Dalal
{
public static void main (String [] args)
    {
Scanner console = new Scanner(System.in);
System.out.println("Hello, Enter a number
please");
int x = console.nextInt();
System.out.println("please enter another
number:");
double y = console.nextDouble();
double z = x*y;
System.out.println("Enter a statement:");
String str = console.nextLine();
    }
}

```