King Saud University
College of Computer and Information Sciences
Computer Science Department

CSC 111	First Semester
Introduction to Programming with Java	**1440-1441**

Self-Check Sheet

Q1) Write a program that calculates the squares and cubes of the numbers from 0 to 5 and prints the resulting values in table format, as shown below:

```
number       square       cube
0            0            0
1            1            1
2            4            8
3            9            27
4            16           64
5            25           125
```

Q2) Write a java program that reads an integer of 6 digits and print the least significant digit and the next least significant digit.

Example:

```
Enter an integer number > 754235
The least significant digit is 5
The next least significant digit is 3
```

Q1: Write a program that helps a customer to calculate the full purchase price. Your program should prompt the user to input the item price, the tax per item and the number of items. Then calculate and display the purchase price according to the following formula:

(Item price + tax per item) * Number of items

Sample Run:

Enter the item price: 40.50

Enter the tax per item: 0.06

Enter the number of items: 3

The total: 121.68

Q2: Write a program to help a store to computes the increase in the employee pay based on given percentage. Your program should prompt the user to enter the pay price per hour and the increase percentage and then display the pay price after the increase.

Sample Run:

Enter the pay price per hour: 20

Enter the increase percentage: 15

The pay price after increase = 23

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```java
import java.util.Scanner;

public class Java_Dalal
{

    public static void main (String [] args)
    {
        //first question:
        int num1,num2,num3,num4,num5, num6 ;
        num1 = 0; num2 = 1; num3 = 2; num4 = 3; num5 = 4; num6 = 5;
        int num11= 0, num22 = 1, num33=num3*num3, num44 = num4*num4, num55 = num5*num5,num66 =num6*num6;
        int num333 = num33*num3, num444= num44*num4, num555= num5*num55, num666= num6*num66;
        String number = "number"; String squared = "squared"; String cubed = "cubed";
        System.out.printf("%-8s %-8s %6s%n",number,squared,cubed);
        System.out.printf("%2d %10d %8d%n", num1,num11,num1);
        System.out.printf("%2d %10d %8d%n", num2,num22,num2);
        System.out.printf("%2d %10d %8d%n", num3,num33,num333);
        System.out.printf("%2d %10d %9d%n", num4,num44,num444);
        System.out.printf("%2d %11d %8d%n", num5,num55,num555);
        System.out.printf("%2d %11d %9d%n", num6,num66,num666);

        //second question:
        System.out.println("Enter a six figure integer:");
        Scanner input = new Scanner(System.in);
        int six_fig = input.nextInt();
        System.out.print( "your six figures number is " + six_fig + " the last figure is " + (six_fig%10));
        System.out.print( " the second to last figure is " + ( (int)((six_fig/10.0) % 10)));

        //third question
        System.out.println("\n \n \nenter your purchaase price please:");
        double purchase = input.nextDouble();
        System.out.println("enter your tax:");
        double tax = input.nextDouble();
        System.out.println("enter the number of items:");
        int items = input.nextInt();
        double total = (purchase*items)+(tax*items);
        System.out.println("your purchase total is " +total);

        //fourth question
        System.out.println("\nenter the pay price per hour: ");
        double pay_price = input.nextDouble();
        System.out.println("enter the increase percentage as an integer:");
        double increase = input.nextDouble();
        double pay_after_increase = pay_price * (100+increase)/100;
        System.out.println("your total pay price after increase is " + pay_after_increase );
    }
}
```