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PSG College Of Technology
Department Of Computer Applications
18MX36 - Java Programming Laboratory
Problem Sheet - 1
(Simple Programs In Java)

1.Write a program that displays Welcome to Java five times.

Answer:
Java Code:

```
package message;
public class Message {
        public static void main(String[] args)
        {
                System.out.println("Welcome to Java");
                System.out.println("Welcome to Java");
                System.out.println("Welcome to Java");
                System.out.println("Welcome to Java");
                System.out.println("Welcome to Java");
        } }
```

Output:

```
Welcome to Java
Welcome to Java
Welcome to Java
Welcome to Java
Welcome to Java
```

2.Write a program that displays the following pattern:
(*Display a pattern*)
J A V V A
J A A V V A A
J J AAAAA V V AAAAA
J J A A V A A

Answer:

Java Code:

```
package javapat;
 public class Javapat {
 public static void main(String[] args) {
 System.out.println("\n\n\n");
 System.out.println("J A V V A");
 System.out.println("J A A V V A A");
 System.out.println("J J AAAAA V V AAAAA");
 System.out.println("J J A A V A A");
 } }
```

Output:

```
J A V V A
J A A V V A A
J J AAAAA V V AAAAA
J J A A V A A
```

3.Write a program that displays the following table:(*Print a table*)

a	a^2	a^3
1	1	1
2	4	8
3	9	27
4	16	64

Answer:

Java Code:

```
package table;
public class Table {
   public static void main(} args[]) {
      System.out.println("a\ta^2\ta^3");
      for( int a=1;a<=4;a++) {
         System.out.println(a+"\t"+a*a+"\t"+a*a*a);
        }
   }
}
```

Output:

a	a^2	a^3
1	1	1
2	4	8
3	9	27
4	16	64

4.How many lines of output are produced (including blank lines)?

```
public class Tricky {

   public static void main(String[] args) {

      System.out.println("Testing, testing,");

      System.out.println("one two three.");

      System.out.println();




      System.out.println("How much output");

      System.out.println();

      System.out.println("will there be?");
   }
}
```

Answer:

Java Code:

```
package tricky;
public class Tricky {

        public static void main(String[] args) {

                System.out.println("Testing, testing,");

                System.out.println("one two three.");

                System.out.println();




                System.out.println("How much output");

                System.out.println();

                System.out.println("will there be?");
        }
 }
```

Output:

```
Testing, testing,
one two three.

How much output

will there be?
```

(6 lines of output are produced including the blank lines)

5.What output is produced by the following code?

```
System.out.println("Shaq is 7'11");
System.out.println("The string \"\" is an empty message.");
System.out.println("\\'\"\\\\\"");
```

Answer:

Java Code:

```
package outputlines;
public class Outputlines {
	public static void main(String[] args) {
		System.out.println("Shaq is 7'11");

		System.out.println("The string \"\" is an empty message.");

		System.out.println("\\'\"\\\\\"");
	}
}
```

Output:

```
Shaq is 7'11
The string " " is a empty message.
\' "\ \"
```

6) Find and print the mystery number by following the instructions below.
Create a variable of type int named mystery and initialize it with a value of 100.

- **Write a Java statement that will increase mystery by 50**
- **Write a Java statement that will decrease mystery by 1.**
- **Write a Java statement that will increase mystery by a factor of 3 (factor means multiply).**
- **Write a Java statement that will increase mystery by 1.**
- **Write a Java statement that will cut mystery in half.**
- **Write a Java statement that will increase mystery by 15.**

- **Write a Java statement that will decrease mystery by 6.**
- **Write a Java statement that will increase mystery by 1.**
- **Write a Java statement that will decrease mystery by 5.**
- **Write a Java statement that will store in mystery the remainder of mystery divided by 10.**
- **Write a Java statement that will increase mystery by a factor of 100.**
- **Write a Java statement that will increase mystery by 12.**
- **Write a Java statement that will decrease mystery by 1.**
- **Print mystery to the console window using the format shown in the Sample Run.**

Answer:

Java Code:

```
package mystery;
public class Mystery {
	public static void main(String[] args) {
		int mystery =100;
		mystery+=50;
		mystery-=1;
		mystery*=3;
		mystery+=1;
		mystery/=2;
		mystery+=15;
		mystery-=6;
		mystery+=1;
		mystery-=5;
		mystery%=10;
		mystery*=100;
		mystery+=12;
		mystery-=1;
		System.out.println(mystery);
	}
 }
```

Output:

```
911
```