Exercise 1: What would be the output of each of the following code fragments:

a)
```
int[] a = {1,2,3,9,8,7};
System.out.print(a.length);
```

b)
```
int[] a = {1,2,3,9,8,7};
System.out.println(a[0]);
System.out.print(a[5]);
```

c)
```
int[] a = {1,2,3,9,8,7};
System.out.println(a[a.length]);
System.out.print(a[a.length-3]);
```

d)
```
double[] b = {1.1, 2.5, 4.6, 10.8};
b[-1] = 4.3;
```

e)
```
int a[];
a[0]=5;
a[1]=3;
```

f)
```
int[] a = new int[10];
for(int i=0; i<a.length; i++){
    a[i]=i;
    System.out.print(a[i]);
```

g)
```
String[] days = {"Sat", "Sun", "Mon", "Tues", "Wed", "Thurs", "Fri"};
for(int i=0; i<days.length; i++)
    if(days[i].equals("Thurs") || days[i].equals("Fri"))
        System.out.println("Week End!");
    else
        System.out.println((days.length-2)-i+" days left for week
end");
```

Exercise 2: Tracing

a) Trace the following program

```java
public class MyProgram {
    private int[] a;
    public MyProgram(int size){
        a = new int[size];
    }

    public void fillArray(){
        for(int i=0; i<a.length; i++)
            a[i]=i+1;
    }
    public int[] reverse(){
        int[] b = new int[a.length];
        for(int i=0; i<b.length; i++)
            b[i]=a[a.length-1-i];
        return b;
    }

    public int mul(int[] c)
    {
        int mul=1;
        for(int i=0; i<c.length; i++)
            mul *= c[i];
        return mul;
    }

    public void display()
    {
        for(int i=0; i<a.length; i++)
            System.out.print(a[i]+" ");
        System.out.println();
    }
}

public class Test {
    public static void main(String[] args){

        MyProgram a = new MyProgram(10);
        a.fillArray();
        a.display();
        int c[] = {3,5,2,1,4};
        System.out.println("Mul result = "+a.mul(c));
        int d[] = a.reverse();
        for(int i=0; i<d.length; i++)
            System.out.print(d[i]+" ");
        System.out.println();

    }
}
```

b) Add a new method in MyProgram claas that returns the sum of even numbers of attribute array a[ ]

```java
public int sumEven(){
//write your code here
}
```

c) Call the method sumEven() in main program and print it result. What is the printed result?

d) Trace the following program

```java
public class test{
    public static void main(String[] args){

        int [] a = new int[10];
        for ( int i = 0; i < 10; i++)
        {
            a[i] = i;
            System.out.println( a[i] );
        }
        for( int i = 0; i < 10; i++) {
            int index = a[9-i];
            a[i] = a[ index ];
            System.out.println( a[i] );
        }
    }
}
```

Exercise 3: Complete the following method that takes a string as an argument and returns this string as an array of chars (*hint: use String.charAt(index) that access a char at the specified index*).

```java
public char[] charRepresentation(String s)
{
    //write your code here
}
```