```java
public class recursao1 {
    public static int soma(int n){
        if (n<=0)
            return 0;
        else return n+soma(n-1);
    }

    public static int fat(int n){
        if (n==0)
            return 1;
        else return n*fat(n-1);
    }

    public static int fib(int n){
        if (n==1)
            return 1;
        if (n==2)
            return 1;

        else return fib(n-1)+fib(n-2);
    }

    public static int exp(int x, int y){
        if (y==0)
            return 1;
        else return x*exp(x,y-1);
    }

    public static int maximo(int n, int v[]){
        int x;
        if (n==0)
            return v[0];
        else {
            x = maximo(n-1, v);
            if (x< v[n])
                return v[n];
            else return x;
        }
    }


    public static boolean decide(int v[], int n, int x){

        if (n==0)
            return false;
        else {
            if (v[n]==x)
                return true;
            else return decide(v, n-1, x);
        }
    }

    public static void main(String[] args) {
        int v[] = {5, 2, 3, 25, 64, 74};

        System.out.println("Soma dos 10 primeiros elementos = "+soma(10));
        System.out.println("Fatorial  = "+fat(5));
        System.out.println("Fibonnacci  = "+fib(6));
        System.out.println("Exponencial  = "+exp(2,3));
```

```
        System.out.println("Máximo  = "+maximo(v.length-1,v));
        System.out.println("Decide  = "+decide(v, v.length-1, 64));
    }

}
```