Exercícios de TPA

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1º DS A

EPS

1002 – Área do Circulo: https://judge.beecrowd.com/pt/problems/view/1002


```java
import java.util.Scanner;

public class AreaCirculo {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        double n = 3.14159;
        double r=sc.nextDouble();
        double a = n*(r*r);
        System.out.printf("A=%.4f%n",a);

        sc.close();
    }

}
```
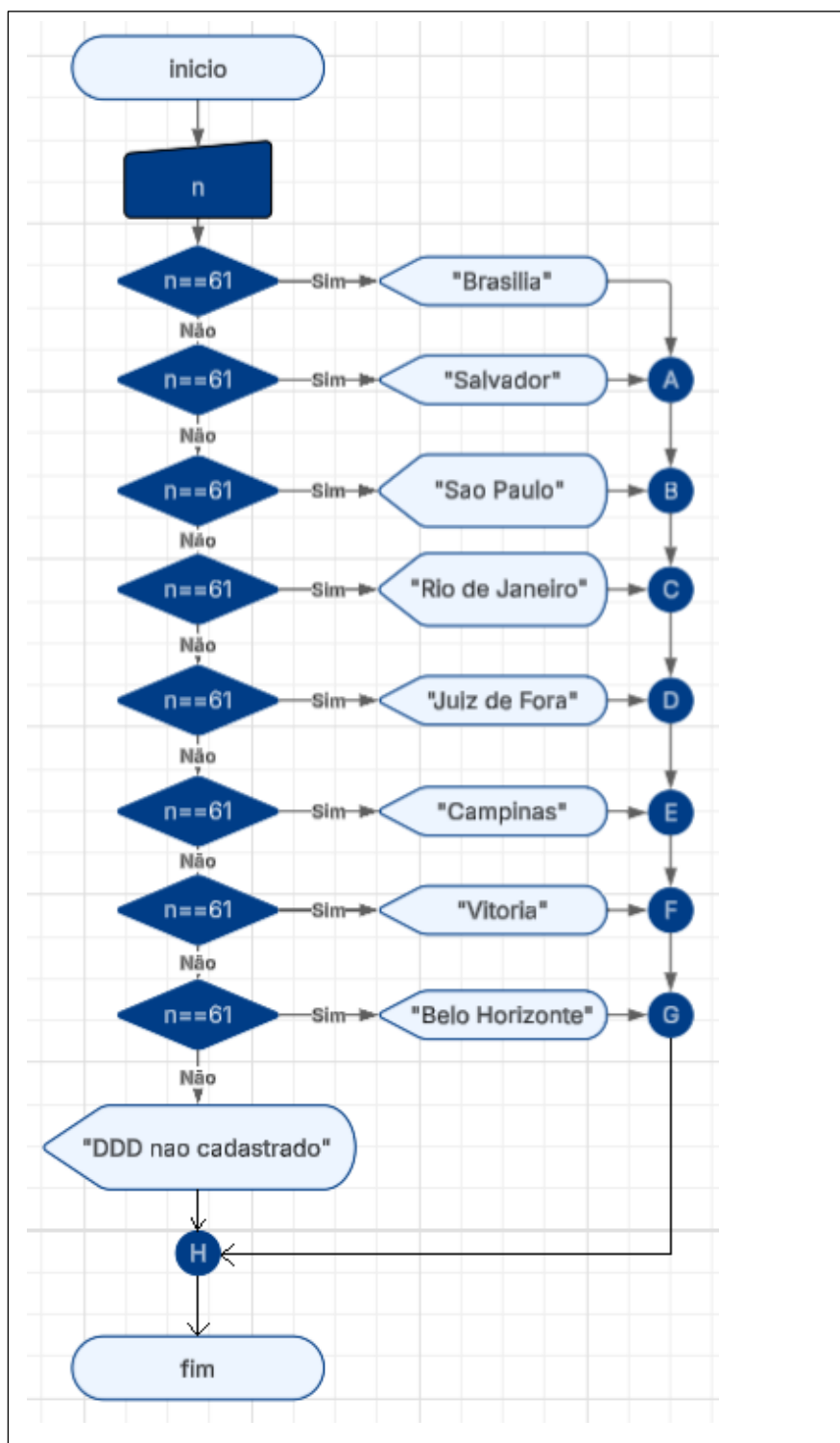
TOMADA DE DECISÃO

1050 – DDD: https://judge.beecrowd.com/pt/problems/view/1050

```java
import java.util.Scanner;

public class DDD {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n=sc.nextInt();

        switch(n) {
        case 61: System.out.println("Brasilia"); break;
        case 71: System.out.println("Salvador"); break;
        case 11: System.out.println("Sao Paulo"); break;
        case 21: System.out.println("Rio de Janeiro"); break;
        case 32: System.out.println("Juiz de Fora"); break;
        case 19: System.out.println("Campinas"); break;
        case 27: System.out.println("Vitoria"); break;
        case 31: System.out.println("Belo Horizonte"); break;
        default:
            System.out.println("DDD nao cadastrado");
        }

        sc.close();
    }

}
```
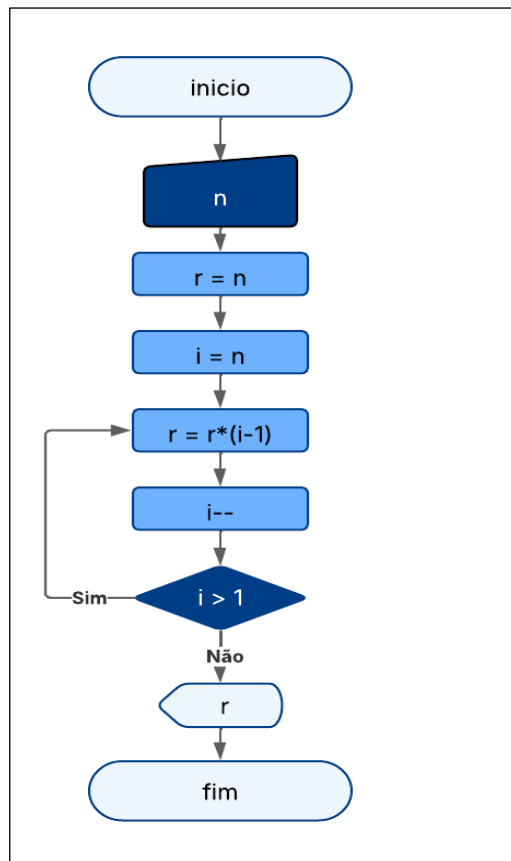
LAÇO (2 exercícios)

1) 1153 – Fatorial Simples: https://judge.beecrowd.com/pt/problems/view/1153

```java
import java.util.Scanner;

public class Fatorial {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int i, r;

        int n = sc.nextInt();
        r = n;
        i = n;

        do {
            r = r*(i-1);
            i--;
        }while (i > 1);
        System.out.println(r);


        sc.close();
    }

}
```
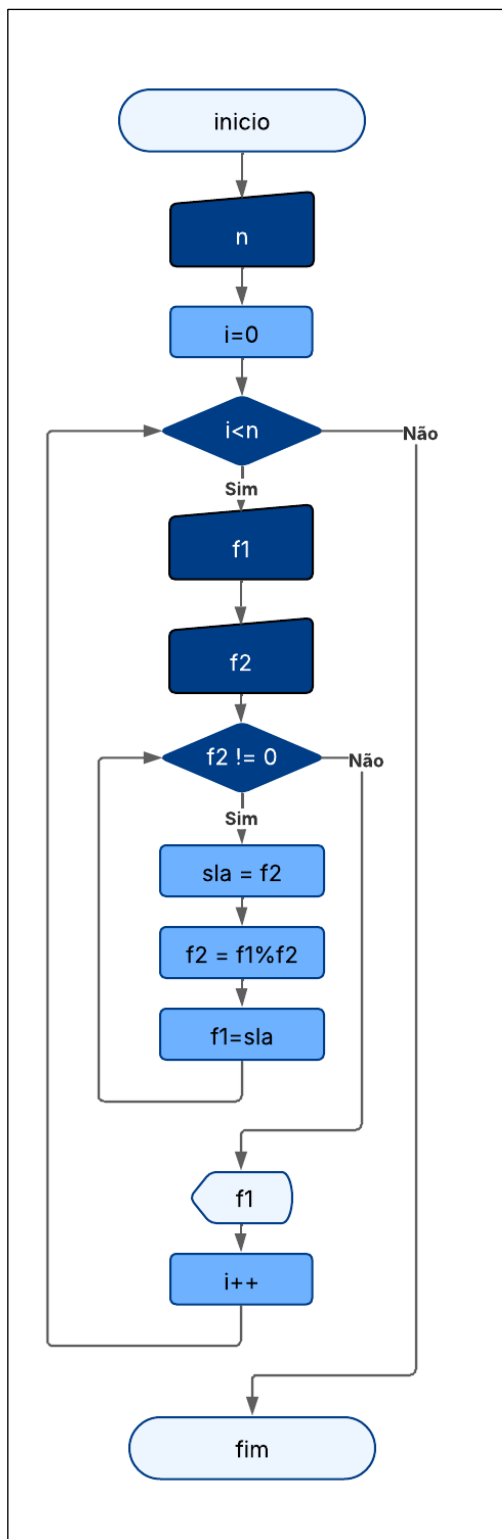
2) 1028 – Figurinhas: https://judge.beecrowd.com/pt/problems/view/1028

```
inicio
n
i=0
i<n ── Não
│ Sim
f1
f2
f2 != 0 ── Não
│ Sim
sla = f2
f2 = f1%f2
f1=sla
f1
i++
fim
```

```java
import java.util.Scanner;

public class P1028_Nivel3_Figurinhas {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int sla;
        int n=sc.nextInt();

        int i=0;
        while(i<n) {
            int f1=sc.nextInt();
            int f2=sc.nextInt();

            while(f2!=0) {
                sla=f2;
                f2=f1%f2;
                f1=sla;
            }
            System.out.println(f1);

            i++;
        }

        sc.close();
    }

}
```
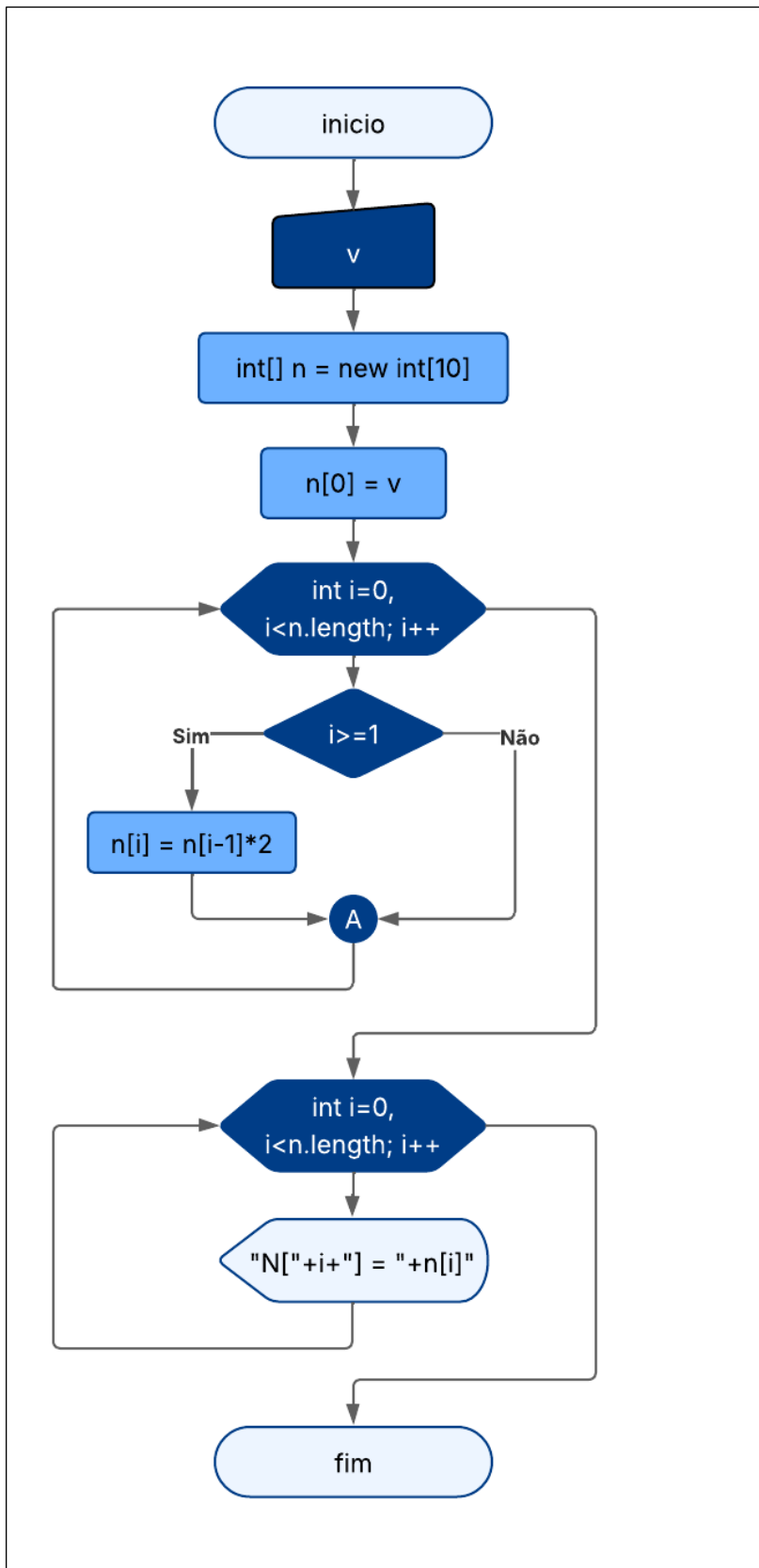
VETOR

1173 - Preenchimento de Vetor I: https://judge.beecrowd.com/pt/problems/view/1173

```mermaid
flowchart TD
    inicio([inicio])
    v[v]
    decl["int[] n = new int[10]"]
    n0["n[0] = v"]
    loop1{int i=0, i<n.length; i++}
    cond{i>=1}
    assign["n[i] = n[i-1]*2"]
    A((A))
    loop2{int i=0, i<n.length; i++}
    print["N["+i+"] = "+n[i]"]
    fim([fim])
```

inicio

v

int[] n = new int[10]

n[0] = v

int i=0, i<n.length; i++

i>=1   — Sim / Não

n[i] = n[i-1]*2

A

int i=0, i<n.length; i++

"N["+i+"] = "+n[i]"

fim

```java
import java.util.Scanner;

public class ArrayFillI {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        int v=sc.nextInt();

        int[] n = new int[10];
        n[0]=v;
        for(int i=0; i<n.length; i++) {
            if(i>=1) {
                n[i] = n[i-1]*2;
            }
        }

        for(int i=0; i<n.length; i++) {
            System.out.println("N["+i+"] = "+n[i]);
        }

        sc.close();
    }

}
```