# PRAKTIKUM DASAR PEMROGRAMAN

Latihan Week 3


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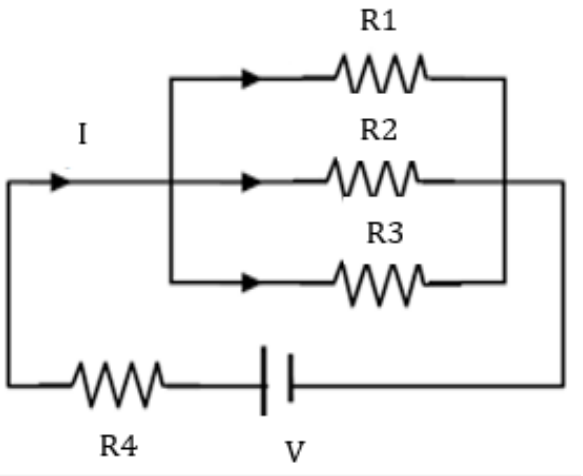
**JURUSAN TEKNOLOGI INFORMASI**

**PROGRAM STUDI D-IV TEKNIK INFORMATIKA**

**Latihan**

Buat program untuk menghitung nilai tagangan V yang ada di dalam rangkain di bawah ini, jika diketahui nilai R1, R2, R3, R4 dan I.

Rumus : V = I x Rtotal




**Jawab :**

- Code Program

```
1   import  java.util.Scanner;
2   public class Latihan03 {
        Run | Debug
3       public static void main(String[] args) {
4
5           Scanner input = new Scanner (System.in);
6           int r1, r2, r3, r4, i;
7           float rp, totalRp, rt, v;
8
9           System.out.println(x:"Menghitung Nilai Tegangan (V) Sesuai Gambar");
10          System.out.print(s:"Masukkan nilai R1\t: ");
11          r1 = input.nextInt();
12          System.out.print(s:"Masukkan nilai R2\t: ");
13          r2 = input.nextInt();
14          System.out.print(s:"Masukkan nilai R3\t: ");
15          r3 = input.nextInt();
16          System.out.print(s:"Masukkan nilai R4\t: ");
17          r4 = input.nextInt();
18          System.out.print(s:"Masukkan nilai I\t: ");
19          i = input.nextInt();
20
```

```
        //Menghitung nilai Rp
        rp = 1.0f/r1+1.0f/r2+1.0f/r3;
        totalRp = 1/rp;
        //Menghitung nilai R total
        rt = r4 + totalRp;
        //Menghitung nilai V
        v = i*rt;

        System.out.println(x:"\nHasil Perhitungan Nilai Tegangan (V)\n");
        System.out.println(x:"Perhitungan Hambatan Paralel");
        System.out.println("1/Rp\t= 1/"+r1+" + 1/"+r2+" + 1/"+r3);
        System.out.println("Rp\t= "+rp);
        System.out.println("Rp\t= "+totalRp);

        float rs = r4;
        System.out.println(x:"\nPerhitungan Hambatan Total");
        System.out.println(x:"R total\t= Rp + Rs");
        System.out.println("R total\t= "+totalRp+" + "+rs);

        System.out.println(x:"\nPerhitungan Nilai Tegangan");
        System.out.println(x:"V\t= I x R total");
        System.out.println("V\t= " +i+" x "+totalRp);
        System.out.println("V\t= " +v+" Volt");

    }
}
```

- Output

```
Menghitung Nilai Tegangan (V) Sesuai Gambar
Masukkan nilai R1       : 2
Masukkan nilai R2       : 3
Masukkan nilai R3       : 6
Masukkan nilai R4       : 4
Masukkan nilai I        : 4

Hasil Perhitungan Nilai Tegangan (V)

Perhitungan Hambatan Paralel
1/Rp    = 1/2 + 1/3 + 1/6
Rp      = 1.0
Rp      = 1.0

Perhitungan Hambatan Total
R total = Rp + Rs
R total = 1.0 + 4.0

Perhitungan Nilai Tegangan
V       = I x R total
V       = 4 x 1.0
V       = 20.0 Volt
```

- Perhitungan secara manual

➢ Menghitung Rp

1/Rp = 1/R1 + 1/R2 + 1/R3

1/Rp = ½ + 1/3 + 1/6

1/Rp = 6/6

Rp = 1

➢ Menghitung R total

R total = Rs + Rp

R total = 4 + 1

R total = 5

➢ Menghitung V

V = I x R total

V = 4 x 5

V = 20 Volt