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Tugas Algoritma dan Pemrograman Minggu 3

Coding:

```
#include <stdio.h>
#include <stdlib.h>
#include <stdbool.h>
int Max2(int a, int b);
int Max3(int a, int b, int c);
int Max4(int a, int b, int c, int d);
int ProductOfN(int N);
int isGanjil(int N);
int isPrima(int N);
float R2F(float R);
float F2R(float F);
int NumOfPrima(int N);
int Pangkat(int basis, int eksp);
int SumOfN(int N);
float Cel2Cal(float Cal);
float Cal2Cel(float Cel);
float Average(int N, int Count);
float AveSumOfN(int N);
float AveProdOfN(int N);
int FPB(int n, int m);
float C2F(float C);
float F2C(float F);
float C2R(float C);
float R2C(float R);
```

```
int main()
{
   printf("Max 2 --> 2 dan 5: %d\n", Max2(2,5));
   printf("Max 3 --> 2, 5, 1: %d\n", Max3(2, 5, 1));
   printf("Max 4 --> 7, 2, 5, 1: %d\n", Max4(7,2,5,1));
   printf("ProductOfN 15: %d\n", ProductOfN(15));
   printf("IsPrima 70: %d\n", isPrima(70));
   printf("NumOfPrima 17: %d\n", NumOfPrima(17));
   printf("Pangkat 2^4: %d\n", Pangkat(2,4));
   printf("SumOfN 15: %d\n", SumOfN(15));
   printf("Average 15: %f\n", Average(70, 80));
   printf("AveSumOfN 15: %f\n", AveSumOfN(15));
   printf("AveProdOfN 15: %f\n", AveProdOfN(15));
   printf("FPB 36 & 48: %d\n", FPB(36,48));
   printf("C2F 15: %.2f F\n", 72.5, C2F(72.5));
   printf("F2C 15: %.2f C\n", 13.5, F2C(13.5));
   printf("C2R 15: %.2f R\n", 72.5, C2R(72.5));
   printf("R2C 15: %.2f C\n", 22.5, R2C(22.5));
   printf("Cel2Cal 15: %.2f K\n", 72.5, Cel2Cal(72.5));
   printf("Cal2Cel 15: %.2f C\n", 172.5, Cal2Cel(172.5));
   printf("R2F 15: %.2f F\n", 72.5 , R2F(72.5));
   printf("F2R 15: %.2f R\n", 62.5, F2R(62.5));
   printf("isGanjil 7: %d\n", isGanjil(7));
   printf("isPrime 17: %d\n", isPrima(17));
   return 0;
}
int Max2(int a, int b) {
   if (a>b) {
      return a;
```

```
    }
    else {
        return b;
    }
}
int Max3(int a, int b, int c) {
    if (a>b && a>c) {
        return a;
    }
    else if (b>a && b>c) {
        return b;
    }
    else {
        return c;
    }
}
int Max4(int a, int b, int c, int d) {
    if (a>b && a>c && a>d) {
        return a;
    }
    else if (b>a && b>c && b>d) {
        return b;
    }
    else if (c>a && c>b && c>d) {
        return c;
    }
    else {
        return d;
    }
```

```
}
float AveSumOfN(int N) {
   int i;
   int total=0;
   float avg;
   for(i=0; i<=N; i++) {
      total+=i;
   }
   avg=total/N;
   return avg;
}
float AveProdOfN(int N) {
   int i;
   int counter=0;
   int total=0;
   float avg;
   for(i=0; i<=N; i++) {
      total=counter*i;
      counter+=i;
   }
   avg=total/N;
   return avg;
}
int FPB(int n, int m) {
   int counter;
   counter = n%m;
   while(counter!=0) {
      n=m;
      m=counter;
```

```
        counter=n%m;
    }
    return m;
}
int ProductOfN(int N) {
    int total=0;
    int counter=0;
    for(int i=0; i<=N; ++i) {
        total = counter*i;
        counter += i;
    }
    return total;
}
int NumOfPrima(int N) {
    int i,j;
    int total=0;
    if(N==0||N==1) {
        return 0;
    }
    for(i=2; i<=N; i++) {
        bool isPrime = true;
        for(j=2; j*j<=i; j++) {
            if(i%j==0) {
                isPrime = false;
                break;
            }
        }
        if(isPrime) {
            total=total+i;
```

```
        }
    }
    return total;
}
float Cel2Cal(float Cel) {
    float Cal;
    Cal=Cel+273;
    return Cal;
}
int Pangkat(int basis, int eksp) {
    if (eksp == 0) {
        return 1;
    }
    int total = basis;
    int incr = basis;
    int i,j;
    for(i=1; i<eksp; i++) {
        for(j=1; j<basis; j++) {
            total += incr;
        }
        incr=total;
    }
    return total;
}
int SumOfN(int N) {
    int total=0;
    for(int i=0; i<=N; ++i) {
        total += i;
    }
```

```
   return total;
}
float Average(int N, int Count) {
   int i;
   int total=0;
   float avg;
   for(i=0; i<=N; ++i) {
      total += i;
   }
   avg=total/Count;
   return avg;
}
float Cal2Cel(float Cal) {
   float Cel;
   Cel=Cal-273;
   return Cel;
}
float R2F(float R) {
   float F;
   F=R-459.67;
   return F;
}
float F2R(float F) {
   float R;
   R=F+459.67;
   return R;
}
int isGanjil(int N) {
   if (N%2 != 0) {
```

```
      return 1;
   }
   else {
      return 0;
   }
}
float C2F(float C) {
   float F;
   F=(C*9/5)+32;
   return F;
}
float F2C(float F) {
   float C;
   C=(F-32)*5/9;
   return C;
}
float C2R(float C) {
   float R;
   R=(C*9/5)+491.67;
   return R;
}
float R2C(float R) {
   float C;
   C=(R-491.67)*5/9;
   return C;
}
int isPrima(int N) {
   int i;
   if(N==0||N==1) {
```

```
        return 0;
    }
    for(i=2; i<=N/2; i++) {
        if(N%i==0) {
            return 0;
            break;
        }
        else {
            return 1;
        }
    }
}
```

Hasil Coding: