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Tugas Algoritma dan Pemrograman Pertemuan 6

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:

Text

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