Basic C Programs

**---------------Temperature---------------**

#include<stdio.h>

#include<conio.h>

void main()

{

float temperature\_in\_c;

float temperature\_in\_f;

printf("Enter Temperature In C\n");

scanf("%f" , &temperature\_in\_c);

printf("The Temperature Is %f", ((temperature\_in\_c\*1.8)+32));

printf("F");

getch();

}

Enter Temperature In C

30

The Temperature Is 86.000000F

**-------Swap With Temporary Variable-------**

#include<stdio.h>

#include<conio.h>

void main(){

float a,b,temp;

printf("enter 2 Values\n");

scanf("%f%f",&a,&b);

temp=a;

a=b;

b=temp;

printf("The swapped values are\n""first number is now equal to%f",a);

printf("\nSecond number is now equal to%f",b);

getch();

}

enter 2 Values

30

24

The swapped values are

first number is now equal to24.000000

Second number is now equal to30.000000

**-------Swap Without Temporary Variable-------**

#include<stdio.h>

#include<conio.h>

void main(){

float a,b;

printf("Enter 2 Values\n");

scanf("%f%f",&a,&b);

a=a\*b;

b=a/b;

a=a/b;

printf("The swapped values are\n""first number is now equal to%f",a);

printf("\nSecond number is now equal to%f",b);

getch();

}

Enter 2 Values

32

45

The swapped values are

first number is now equal to45.000000

Second number is now equal to32.000000

**-------Calculate Percentage-------**

#include<stdio.h>

#include<conio.h>

void main()

{

float math,science,english,other;

int Total;

printf("Enter Total Marks Obtainable\n");

scanf("%d",&Total);

printf("\n");

printf("Enter Math Marks\n");

scanf("%f",&math);

printf("Enter Science Marks\n");

scanf("%f",&science);

printf("Enter English Marks\n");

scanf("%f",&english);

printf("Enter Other Marks\n");

scanf("%f",&other);

printf("\nyour percentage is %0.2f",((math+science+english+other)/(4\*Total)\*100 ));

printf("%%");

getch();

}

Enter Total Marks Obtainable

50

Enter Math Marks

25

Enter Science Marks

35

Enter English Marks

45

Enter Other Marks

10

your percentage is 57.50%

**-------Odd Or Even-------**

#include<stdio.h>

#include<conio.h>

void main(){

int Input;

printf("Enter Value To Be Checked\n");

scanf("%d",&Input);

if(Input%2==0){

printf("%d",(Input));

printf(" Is Even");

}

else{

printf("%d",(Input));

printf(" Is Odd");

}

getch();

}

**Enter Value To Be Checked**

**32**

**32 Is Even**

**-------------------------------------**

**Enter Value To Be Checked**

**93**

**93 Is Odd**

Greatest Number

#include<stdio.h>

#include<conio.h>

void main(){

int a,b,c;

printf("Enter 3 Numbers\n");

printf("\nEnter First Number\n");

scanf("%d",&a);

printf("\nEnter Second Number\n");

scanf("%d",&b);

printf("\nEnter Third Number\n");

scanf("%d",&c);

printf("\n");

if(a>b)

{

if(a>c)

{

printf("%d",(a));

printf(" is the Greatest");

}

else{

printf("%d",(c));

printf(" is the Greatest");

}

}

else{

if(b>c){

printf("%d",(b));

printf(" is the Greatest");

}

else{

printf("%d",(c));

printf(" is the Greatest");

}

}

getch();

}

Enter 3 Numbers

Enter First Number

1

Enter Second Number

2

Enter Third Number

3

3 is the Greatest

…………………………………………………………

Enter 3 Numbers

Enter First Number

2

Enter Second Number

3

Enter Third Number

1

3 is the Greatest

……………………………………………………………………

Enter 3 Numbers

Enter First Number

3

Enter Second Number

2

Enter Third Number

1

3 is the Greatest

Class Of The Student

#include<stdio.h>

#include<conio.h>

void main(){

float Percentage;

float math,science,english,other;

int Total;

printf("Enter Total Marks Obtainable\n");

scanf("%d",&Total);

printf("\n");

printf("Enter Math Marks\n");

scanf("%f",&math);

printf("Enter Science Marks\n");

scanf("%f",&science);

printf("Enter English Marks\n");

scanf("%f",&english);

printf("Enter Other Marks\n");

scanf("%f",&other);

Percentage=((math+science+english+other)/(4\*Total)\*100);

printf("Percentage is %0.2f\n",Percentage);

if(Percentage>=75){

printf("Distinction");

}

else{

if(Percentage>=60){

printf("First Class");

}

else{

if(Percentage>=40){

printf("Second Class");

}

else{

printf("YOU FAILED");

}

}

}

getch();

}

Enter Total Marks Obtainable

100

Enter Math Marks

100

Enter Science Marks

89

Enter English Marks

90

Enter Other Marks

78

Percentage is 89.25

Distinction

……………………………………………………………………

Enter Total Marks Obtainable

100

Enter Math Marks

20

Enter Science Marks

20

Enter English Marks

10

Enter Other Marks

12

Percentage is 15.50

YOU FAILED

…………………………………………

Enter Total Marks Obtainable

100

Enter Math Marks

50

Enter Science Marks

60

Enter English Marks

70

Enter Other Marks

70

Percentage is 62.50

First Class

………………………………………………………………

Enter Total Marks Obtainable

100

Enter Math Marks

40

Enter Science Marks

50

Enter English Marks

45

Enter Other Marks

51

Percentage is 46.50

Second Class

Leap year

#include<stdio.h>

#include<conio.h>

void main(){

int year;

printf("Enter Year\n");

scanf("%d", &year);

if((year%4==0&&year%100!=0)||(year%400==0)){

printf("%d is a leap Year",(year));

}else{

printf("%d is not a leap Year",(year));

}

getch();

}

Enter Year

1701

1701 is not a leap Year

Enter Year

2020

2020 is a leap Year

Calculator with switch

#include<stdio.h>

#include<conio.h>

void main(){

printf(" Enter 1 for addition,\n Enter 2 for Subtraction,\n Enter 3 for Multiplication,\n Enter 4 for Divsion\n");

int n;

float a;

float b;

scanf("%d",&n);

switch(n){

case 1:

{

printf("Enter First Value to Be Added\n");

scanf("%f",&a);

printf("Enter First Value to Be Added\n");

scanf("%f",&b);

printf("%f is the Sum of a and b\n",(a+b));

}

case 2:

{

printf("Enter First Value to Be Subtracted\n");

scanf("%f",&a);

printf("Enter First Value to Be Subracted\n");

scanf("%f",&b);

printf("%f is the Difference of a and b\n",(a-b));

}

case 3:

{

printf("Enter First Value to Be Multiplied\n");

scanf("%f",&a);

printf("Enter First Value to Be Multiplied\n");

scanf("%f",&b);

printf("%f is the product of a and b\n",(a\*b));

}

case 4:

{

printf("Enter First Value to Be Divided\n");

scanf("%f",&a);

printf("Enter First Value to Be Divided\n");

scanf("%f",&b);

printf("%f is the Division of a and b\n",(a/b));

}

}

getch();

}

Output

Enter 1 for addition,

Enter 2 for Subtraction,

Enter 3 for Multiplication,

Enter 4 for Divsion

1

Enter First Value to Be Added

10

Enter First Value to Be Added

3

13.000000 is the Sum of a and b

Enter First Value to Be Subtracted

3

Enter First Value to Be Subracted

64

-61.000000 is the Difference of a and b

Enter First Value to Be Multiplied

2

Enter First Value to Be Multiplied

19

38.000000 is the product of a and b

Enter First Value to Be Divided

4

Enter First Value to Be Divided

3

1.333333 is the Division of a and b

Bitwise operators

#include<stdio.h>

#include<conio.h>

void main(){

int a,b;

printf("Enter 2 Values\n\n");

printf("\nEnter a\n");

scanf("%d",&a);

printf("Enter b\n");

scanf("%d",&b);

printf("\na&b=%d\n\n",a&b);

printf("a|b=%d\n\n",a|b);

printf("b>>1=%d\n\n",b>>1);

printf("b<<1=%d\n\n",b<<1);

printf("~a=%d\n",~a);

getch();

}

Output

Enter 2 Values

Enter a

5

Enter b

9

a&b=1

a|b=13

b>>1=4

b<<1=18

~a=-6

Factorial calculator

#include<stdio.h>

#include<conio.h>

void main(){

int n,a,in;

printf("Enter Number To Be Factoralised\n");

scanf("%d",&n);

a=n;

in=n;

for(n=n;n!=1;n--){

a=a\*(n-1);

}

printf("\n%d is the factorial of %d\n",a,in);

getch();

}

Output

Enter Number To Be Factoralised

5

120 is the factorial of 5

……………………………………………………………………………………………………………

Enter Number To Be Factoralised

0

1 is the factorial of 0