

1. Write a program to compute area of a circle after reading input from user.

```
#include <stdio.h>
#include <conio.h>
int main()
{
    float area, radius, pi=3.141;
    printf("Enter the radius of circle \t");
    scanf("%f", &radius);
    printf("Area of a circle is %f", area=pi*radius*radius);
    getch();
}
```

2. Write a program to calculate total marks.

```
#include<stdio.h>
#include<conio.h>
main()
{
    int n, a, b, c=0;
    printf("\n\nwrite the number of subjects\t");
    scanf("%i", &n);
    for(int a=0;a<n;a++)
    {
        printf("enter the marks of subject %d:", a);
        scanf("%i", &b);
        c=c+b;
    }
    printf("\n\n\t\tTOTAL MARKS ARE %i", c);
    getch();
}
```

3. Write a program to calculate total marks and percentage of three subjects.

```
#include <stdio.h>
#include <conio.h>
int main()
{
    float a, b, c ;
    printf("Enter the marks of first subject \t");
    scanf("%f", &a);
    printf("Enter the marks of second subject \t");
```

```

scanf("%f", &b);
printf("Enter the marks of third subject \t");
scanf("%f", &c);
printf("Total marks of subject are\t\t%f \n", a+b+c);
printf("Percentage of total marks is \t %f", (a+b+c)/300*100);
getch();
}

```

4. Write a program to find out power of any number.

```

#include<conio.h>
#include<stdio.h>
main()
{
    int num, pow, a=1, i;
    printf("Enter the number\t");
    scanf("%d", &num);
    printf("\nEnter its power\t\t");
    scanf("%d", &pow);
    for(i=1;i<=pow;i++)
    {
        a=a*num;
    }
    printf("\n\n\t\t\t\t\t%d^%d is %d", num, pow, a);
    getch();
}

```

5. Write a program to Sum, Subtract, Multiply and Division of two numbers.

```

#include <stdio.h>
#include <conio.h>
int main()
{
    float a, b ;
    printf("Enter the marks of first number \t");
    scanf("%f", &a);
    printf("Enter the marks of second number \t");
    scanf("%f", &b);

```

```

if(a==e && b==d)
    printf(a==e && b==d ? "\n\noriginal and reversed numbers are equal":"\n\noriginal and reversed
numbers are not equal");
else if(a!=e && b!=d)
    printf("\n\noriginal and reversed numbers are not equal");
getch();
}

```

18. Any year is input through the keyboard. Write a program to determine whether the year is a leap year or not.

```

#include<stdio.h>
#include<conio.h>
main()
{
    int year;
    printf("Enter a Year\t");
    scanf("%d",&year);
    if(year%100==0)
    {
        if(year%400==0)
            printf("\nit is a Leap Year");
        else
            printf("\nit is not Leap Year");
    }
    else
    if(year%4==0)
        printf("\nit is a Leap Year");
    else
        printf("\nit is not Leap Year");
    getch();
}

```

19. Write a program using conditional operators to determine whether a year entered through the keyboard is a leap year or not.

```

#include<stdio.h>
#include<conio.h>
main()
{

```

```

    int a, b, c;
    printf("Enter first angle of triangle\t");
    scanf("%d",&a);
    printf("Enter second angle of triangle\t");
    scanf("%d",&b);
    printf("Enter third angle of triangle\t");
    scanf("%d",&c);
    if(a+b+c==180)
    printf("\nTriangle is valid");
    else
    printf("\nTriangle is not valid");
    getch();
}

```

22. Find the absolute value of a number entered through the keyboard.

```

#include<stdio.h>
#include<conio.h>
main()
{
    int num;
    printf("Enter a number to find its absolute value\t");
    scanf("%d",&num);
    if(num<0)
    num=(-1)*num;
    printf("\nAbsolute value of number is %d", num);
    getch();
}

```

23. Write a program to find the greatest of the three numbers entered through the keyboard using conditional operators.

```

#include<stdio.h>
#include<conio.h>
main()
{
    int a, b, c;
    printf("Enter first number\t");

```

```

printf( "\n\tArea of triangle is\t%f", area= s*(s-a)*(s-b)*(s-c) );
else
printf("triangle is not valid");
getch();
}

```

26. Write a program that inputs an integer – determine if it is even or odd.

```

#include<stdio.h>
#include<conio.h>
main( )
{
int num;
printf( "Enter the number\t" );
scanf("%d", &num);
if(num%2==0)
printf( "\n\tNumber you enter is even");
else
printf("\n\tNumber is odd");
getch();
}

```

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27. Write a program that determines the number entered by the user is even or odd. After displaying the message (“Even” or “Odd”), it ask the user Do you want to enter another number (y/n). If the user enter y, it do the same process again otherwise exit. (Note: use do-while loop)

```

#include<stdio.h>
#include<conio.h>
main( )
{
int x;
char y;
do
{
printf( "\n\nEnter the number\t" );
scanf("%d", &x);

```

```

printf("Enter number\t");

scanf("%f", &d);

printf("\nThe sum of series is\t%f", d);

printf("\nMean of series is\t%f", d);

printf("\nThe maximum number is\t%f", d);

printf("\nThe minimum number is\t%f", d);

}

else

{

printf("\nEnter 1st numbers in series\t");

scanf("%f", &d);

while(i<a)

{printf("Enter the other numbers in series\t");

scanf("%f", &f);

if(f>d)

{g=f;}

if(f>d)

{h=d;}

s=s+f;

count++;

i++;

}

s=s+d;

m=s/count;

printf("\nThe sum of series is\t%f", s);

printf("\nMean of series is\t%f", m);

printf("\nThe maximum number is\t%f", g);

printf("\nThe minimum number is\t%f", h);}

getch();

}

```

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```

scanf("%d%d",&n,&p);

y=power(n,p);

printf("%d^%d=%d",n,p,y);

getch();}

int power(int a, int s)

{

    int pow=1;

    for(int i=1;i<=s;i++)

    {pow=pow*a;}

    return pow;}

```

b. by recursion method

```

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

int power(int ,int );

int main()

{

    int n,p,result;

    printf("Enter base number: ");

    scanf("%d",&n);

    printf("Enter power number: ");

    scanf("%d",&p);

    result=power(n,p);

    printf("%d^%d=%d",n,p,result);

    getch();

}

int power(int a,int s)

{

    if(s==1)

        return a;

    else

```

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```
}
```

55. Write a program that reads any number (ask user) of integers from a user, and then prints total number of even, and odd integers entered. The program also prints the total number of zeros.

```
#include<conio.h>

#include<stdio.h>

main()
{
    printf("Some instructions:\n");

    printf("It read also '0' as even including those divisible by 2 and ");

    printf("1 as odd number and it will not count starting zeros of a number");

    printf("\nmeans for'0090' it will count only one zero");

    int a, e=0, o=0, z=0, k;

    printf("\nEnter the number\t");

    scanf("%d", &a);

    for(;a!=0;)
    {
        k=a%10;
        a/=10;

        if(k%2==0&&k!=1)

            e++;

        if(k%2==1 || k==1)

            o++;

        if(k==0)

            z++;

    }

    printf("\n\n3Total number of even integers are %d",e);

    printf("\nTotal number of odd are integers %d",o);

    printf("\nTotal number of zeros are integers %d",z);

    getch();
}
```

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56. Ten different numbers are input in an array. Write a program to search a specific value in the array. If array contain that value then add that value in all elements of the array.

```
#include<conio.h>

#include<stdio.h>

main()
{
    int array[10];

    printf("Enter the 10 values you want to put in an array\n");
    for(int i=0;i<10;i++)
        scanf("%d", &array[i]);

    int num;

    printf("Enter the number to search in array\n");
    scanf("%d", &num);

    int check;
    for(int i=0;i<10;i++){if(num==array[i]){check=1;break;}}
    if (check==1){for(int i=0;i<10;i++){array[i]=array[i]+num;}}
    printf("Array is");
    for(int i=0;i<10;i++)printf(" %d",array[i]);

    getch();
}
```

57. Forty students were asked to rate the quality of food in the student cafeteria, on a scale of 1 to 10 (1 means awful and 10 means excellent). Place the forty responses in an integer array and summarize the results of the poll.

```
#include <stdio.h>

#include <conio.h>

void func(int responses[]){

int answe, ratin, frequenc[ 11 ] = { 0 };

for ( answe = 0; answe < 40 ; answe++ )

    ++frequenc[ responses [ answe ] ];

for ( ratin = 1; ratin <= 10; ratin++ )
```

```

printf( "\n%d \t%d\n", ratin, frequenc[ ratin ] );}

int main()
{
    int response[ 40 ] ={ 5, 8, 3, 5, 5, 9, 10, 8, 5, 7 ,1, 2, 5, 4, 4, 5, 5, 6, 3, 2,1, 1, 3, 3, 4, 1, 3, 4, 2, 4,5, 5, 10, 3, 3,
    6, 7, 5, 4, 4,};

    printf( "Item quality POLL\n" );

    printf( "%s\t%s\n", "Rating", "Frequency" );

    func(response);

    printf( "\n\n" );

    getch();
}

```

58. Write a program which performs the following tasks:

- initialize an integer array of 10 elements in main()
- pass the entire array to a function modify()
- in modify() multiply each element of array by 3
- return the control to main() and print the new array element in main()

```

#include<conio.h>

#include<stdio.h>

void modify(int arr[])
{
    for(int i=0;i<10;i++)
        {arr[i]=arr[i]*3;}
}

main()
{
    int array[10]={1,2,3,2,3,4,3,2,1,4,5,6};

    modify(array);

    for(int i=0;i<10;i++)
        printf(" %d", array[i]);

    getch();
}

```