Assignment No.6

Q.1 Write a program to calculate sum of first N natural numbers.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int sum=0;

    for(i=1; i<=n; i++)

    {

      sum=sum+i;

    }

    printf ("sum of above number is %d\n",sum);

    return 0;

}

Q.2 Write a program to calculate sum of first N even natural numbers.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int sum=0;

    for(i=0; i<=2\*n; i=i+2)

    {

      sum=sum+i;

    }

    printf ("sum of above number is %d\n",sum);

    return 0;

}

Q.3 Write a program to calculate sum of first N odd natural numbers.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int sum=0;

    for(i=1; i<=2\*n; i=i+2)

    {

      sum=sum+i;

    }

    printf ("sum of above number is %d\n",sum);

    return 0;

}

Q.4 Write a program to calculate sum of squares of first N natural numbers.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int sum=0;

    for(i=1; i<=n; i++)

    {

      printf("square of above number is %d\n",i\*i);

      sum=sum+(i\*i);

    }

    printf ("sum of square of above number is %d\n",sum);

    return 0;

}

Q.5 Write a program to calculate sum of cubes of first N natural numbers.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int sum=0;

    for(i=1; i<=n; i++)

    {

      printf("cube of above number is %d\n",i\*i\*i);

      sum=sum+(i\*i\*i);

    }

    printf ("sum of cubes of above number is %d\n",sum);

    return 0;

}

Q.6 Write a program to calculate factorial of a number.

#include <stdio.h>

int main()

{

    int n,i;

    printf ("enter number\n");

    scanf ("%d",&n);

    int fact=1;

    for(i=1; i<=n; i++)

    {

      fact= fact\*i;

    }

    printf ("factorial of above number is %d",fact);

    return 0;

}

Q.7 Write a program to count digits in a given number.

#include <stdio.h>

int main()

{

    int n,count=0;

    printf ("enter number\n");

    scanf ("%d",&n);

    while(n!=0)

    {

      n=n/10;

      count++;

    }

    printf ("number of digit is %d",count);

    return 0;

}

Q.8 Write a program to check whether a given number is a Prime number or not.

#include <stdio.h>

int main()

{

    int n,i,a;

    printf ("enter number\n");

    scanf ("%d",&n);

    for(i=2; i<n; i++)

    {

     if(n%i==0)

     {

      a=1;

      break;

     }

     }

     if(a==1)

     {

      printf ("not a prime number\n");

     }

     else{

      printf("prime number\n");

     }

    return 0;

}

Q.9 Write a program to calculate LCM of two numbers.

#include <stdio.h>

int main()

{

  int n1,n2,i;

  printf ("enter two number\n");

  scanf ("%d %d",&n1,&n2);

  for(i=1;  ; i++)

  {

    if(i%n1==0 && i%n2==0)

    {

      printf ("LCM of above numbers is %d",i);

      break;

    }

  }

    return 0;

}

Q.10 Write a program to reverse a given number.

#include <stdio.h>

int main()

{

  int n,remainder,reverse=0;

  printf ("enter a number\n");

  scanf ("%d",&n);

  while(n!=0)

  {

    remainder=n%10;

    n=n/10;

    reverse=reverse\*10 + remainder;

  }

  printf("reverse of a number is %d\n",reverse);

    return 0;

}