Code 1:

**Count the number of digits in c**

#include<stdio.h>

int main(){

  int num,count=0;

  printf("Enter a number: ");

  scanf("%d",&num);

  while(num){

      num=num/10;

      count++;

  }

  printf("Total digits is:  %d",count);

  return 0;

}

Sample output:

Enter a number: 23

Total digits is:  2

Code 2:

**C code to count the total number of digit using for loop**

#include<stdio.h>

int main(){

  int num,count=0;

  printf("Enter a number: ");

  scanf("%d",&num);

  for(;num!=0;num=num/10)

      count++;

  printf("Total digits is:  %d",count);

  return 0;

}

Sample output:

Enter a number: 456

Total digits is:  3

Code 3:

**Count the digits of a given number in c language using recursion**

#include<stdio.h>

int countDigits(num);

int main(){

  int num,count;

  printf("Enter a number: ");

  scanf("%d",&num);

  count = countDigits(num);

  printf("Total digits is:  %d",count);

  return 0;

}

int countDigits(int num){

    static int count=0;

     if(num!=0){

          count++;

         countDigits(num/10);

    }

    return count;

}

Sample output:

Enter a number: 1234567

Total digits is:  7