ES-202

Introduction to Programming in C

Assignment-II

C Programming Exercises

1. **Write a C program to print all alphabets from a to z.**

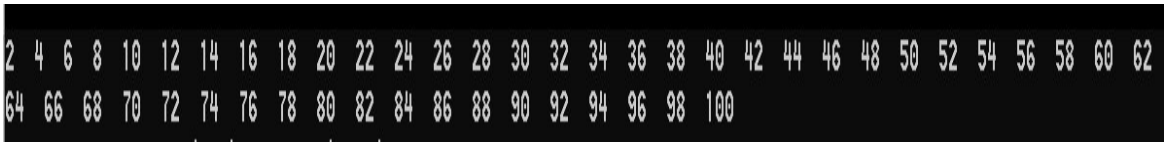
```
#include <stdio.h>
void main()
{
 for(int i=97;i<=122;++i)
  printf("%c ",i);
}
```

OUTPUT:

2. **Write a C program to print all even numbers between 1 to 100.**

```
#include <stdio.h>
void main()
{
 for(int i=2;i<=100;++i)
 {
  if(i%2==0)
   printf("%d  ",i);
 }
}
```

OUTPUT:



3. Write a C program to find sum of all odd numbers between 1 to n.

```
#include <stdio.h>
void main()
{
 int n;
 printf("Enter number of terms: ");
 scanf("%d",&n);
 int sum=0;
 for(int i=1;i<=n;++i)
 {
  if(i%2!=0)
    sum+=i;
 }
 printf("Sum of odd numbers till n terms: %d",sum);
}
```

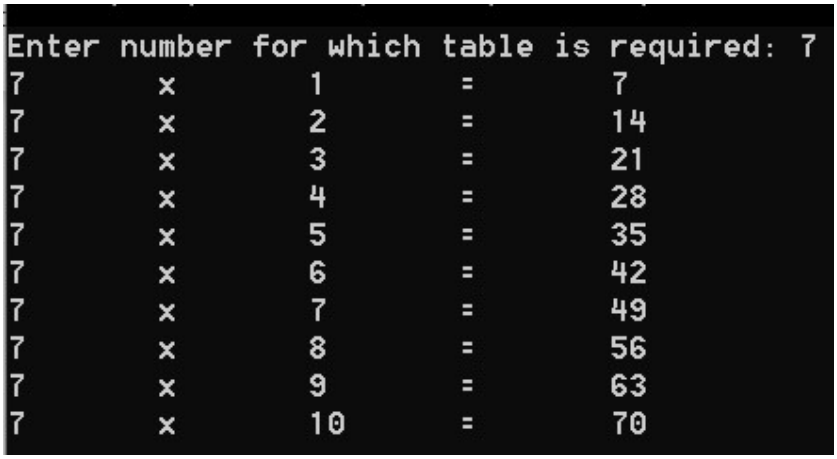
OUTPUT:

```
Enter number of terms: 100
Sum of odd numbers till n terms: 2500
Process returned 37 (0x25)   execution time : 2.816 s
```

4. Write a C program to print multiplication table of any number.

```
#include <stdio.h>
void main()
{
 int n;
 printf("Enter number for which table is required: ");
 scanf("%d",&n);
 for(int i=1;i<=10;++i)
    printf("%d\tx\t%d\t=\t%d\n",n,i,n*i);
 }
```

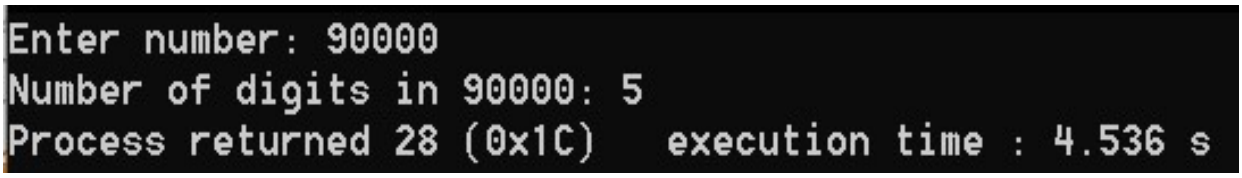
OUTPUT:



5. Write a C program to count number of digits in a number.

```
#include <stdio.h>
void main()
{
  int n;int m=0;
  printf("Enter number: ");
  scanf("%d",&n);
  int t=n;
  while(n!=0)
   {
     n/=10;
     ++m;
     }
     printf("Number of digits in %d: %d",t,m);
}
```

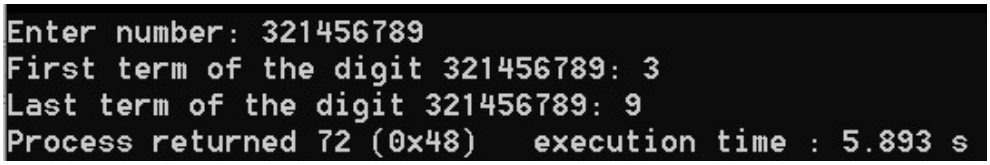
OUTPUT:



6. **Write a C program to find first and last digit of a number.**

```
#include <stdio.h>
#include <math.h>
void main()
{
 int n;int m=0;
 printf("Enter number: ");
 scanf("%d",&n);
 int c=0,t=n;
 while(t!=0)
 {
  t/=10;
  ++c;
 }
 int a=(int)pow(10,c-1);
 printf("First term of the digit %d: %d\nLast term of the digit %d: %d",n,n/a,n,n%10);
}
```

OUTPUT:



7. Write a C program to swap first and last digits of a number.

```
#include <stdio.h>
#include <math.h>
void main()
{
 int n,m;
 printf("Enter number: ");
 scanf("%d",&n);
 int c=0,t=n;
 while(t!=0)
 {
  t/=10;
  ++c;
 }
 int f=n/(int)pow(10,c-1);
 int l=n%10;
 m=l;
 m*=(int)pow(10,c-1);
 m+=n%((int)pow(10,c-1));
 m=m-l+f;
 printf("Required Number: %d",m);
}
```

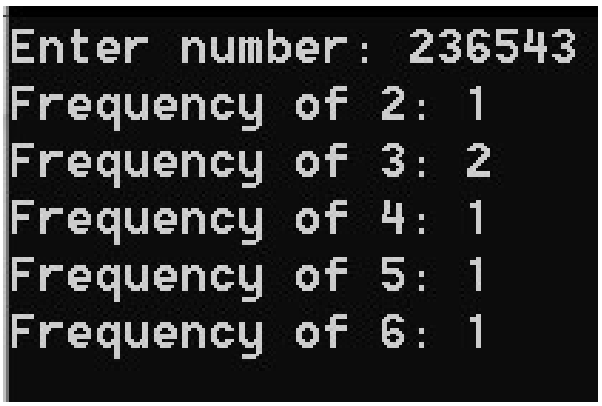
OUTPUT:

```
Enter number: 321456789
Required Number: 921456783
Process returned 26 (0x1A)   execution time : 3.664 s
```

8. Write a C program to find frequency of each digit in each integer.

```
#include <stdio.h>
void main()
{
 int n,t=n,c=0;
 printf("Enter number: ");
 scanf("%d",&n);
  while(t!=0)
 {
  t/=10;
  ++c;
 }
 int num[]={0,0,0,0,0,0,0,0,0,0};
 while(n!=0)
 {
    int a=n%10;
    ++num[a];
    n/=10;
 }
for(int i=0;i<10;++i)
 if(num[i]!=0)
  printf("Frequency of %d: %d\n",i,num[i]);
}
```

OUTPUT:



9. Write a C program to enter a number and print it in words.

```
#include <stdio.h>
void main()
{
 int n,num;
 printf("Enter number: ");
 scanf("%d",&n);
 while(n != 0)
   {
      num = (num * 10) + (n % 10);
      n /= 10;
   }
 while(num!=0)
 {
  int a =num%10;
 switch(a)
 {case 0: printf("ZERO ");
        break;
 case 1: printf("ONE ");
        break;
 case 2: printf("TWO ");
        break;
 case 3: printf("THREE ");
        break;
 case 4: printf("FOUR ");
        break;
 case 5: printf("FIVE ");
        break;
 case 6: printf("SIX ");
        break;
 case 7: printf("SEVEN ");
        break;
 case 8: printf("EIGHT ");
        break;
 case 9: printf("NINE ");
```

```
            break;
        }
         num/=10;
        }
       }
```

OUTPUT:

10. Write a C program to print all ASCII character with their values.

```
#include <stdio.h>
void main()
{
 printf("Character :  ASCII Code\n");
 for(int i=0;i<=256;++i)
  printf("%c :%d\n",i,i);
}
```

OUTPUT: