**//1 ARMSTRONG NUMBER**

**#include<stdio.h>**

**int main()**

**{**

**int n,r,sum=0,temp;**

**printf("enter the number=");**

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

**temp=n;**

**while(n>0)**

**{**

**r=n%10;**

**sum=sum+(r\*r\*r);**

**n=n/10;**

**}**

**if(temp==sum)**

**printf("armstrong number ");**

**else**

**printf("not armstrong number");**

**}**

**OUTPUT:**

**enter the number=123**

**not armstrong number**

**//2 FIBONACCI SERIES**

**#include <stdio.h>**

**int main()**

**{**

**int i, n;**

**int t1 = 0, t2 = 1;**

**int nextTerm = t1 + t2;**

**printf("Enter the number of terms: ");**

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

**printf("Fibonacci Series: %d, %d, ", t1, t2);**

**for (i = 3; i <= n; i++)**

**{**

**printf("%d, ", nextTerm);**

**t1 = t2;**

**t2 = nextTerm;**

**nextTerm = t1 + t2;**

**}**

**return 0;**

**}**

**OUTPUT:**

**Enter the number of terms: 5**

**Fibonacci Series: 0, 1, 1, 2, 3**

**//3 G.C.D OF TWO NUMBERS**

**#include <stdio.h>**

**int main()**

**{**

**int n1, n2, i, gcd;**

**printf("Enter two integers: ");**

**scanf("%d %d", &n1, &n2);**

**for(i=1; i <= n1 && i <= n2; ++i)**

**{**

**if(n1%i==0 && n2%i==0)**

**gcd = i;**

**}**

**printf("G.C.D of %d and %d is %d", n1, n2, gcd);**

**return 0;**

**}**

**OUTPUT:**

**Enter two integers: 2**

**8**

**G.C.D of 2 and 8 is 2**

**//4 LARGEST ELEMENT IN ARRAY**

**#include <stdio.h>**

**int main()**

**{**

**int n;**

**double arr[100];**

**printf("Enter the number of elements : ");**

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

**for (int i = 0; i < n; i++)**

**{**

**printf("Enter number%d: ", i + 1);**

**scanf("%lf", &arr[i]);**

**}**

**for (int i = 1; i < n; i++)**

**{**

**if (arr[0] < arr[i])**

**{**

**arr[0] = arr[i];**

**}**

**}**

**printf("Largest element = %.2lf", arr[0]);**

**return 0;**

**}**

**OUTPUT:**

**Enter the number of elements : 4**

**Enter number1: 2**

**Enter number2: 3**

**Enter number3: 4**

**Enter number4: 2**

**Largest element = 4**

**//5 PRIME NUMBER**

**#include <stdio.h>**

**int main()**

**{**

**int i,num, count = 0;**

**printf("Enter the number: ");**

**scanf("%d", &num);**

**for(i = 1; i <= num; i++)**

**{**

**if(num % i == 0)**

**count += 1;**

**}**

**if(count > 2)**

**printf("%d is not prime", num);**

**else**

**printf("%d is prime", num);**

**return 0;**

**}**

**OUTPUT:**

**Enter the number: 5**

**5 is prime**

**//6 FACTORIAL**

**#include<stdio.h>**

**int main()**

**{**

**int i,fact=1,number;**

**printf("Enter a number: ");**

**scanf("%d",&number);**

**for(i=1;i<=number;i++){**

**fact=fact\*i;**

**}**

**printf("Factorial of %d is: %d",number,fact);**

**return 0;**

**}**

**OUTPUT:**

**Enter a number: 6**

**Factorial of 6 is: 720**

**//7 SELECTION SORT**

**#include <stdio.h>**

**int main()**

**{**

**int arr[10];**

**int i, j, position, swap,n;**

**printf("Enter the number of elements: ");**

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

**for (int i = 0; i < n; i++)**

**{**

**printf("Enter number%d: ", i + 1);**

**scanf("%d", &arr[i]);**

**}**

**for (i = 0; i < (n - 1); i++)**

**{**

**position = i;**

**for (j = i + 1; j < n; j++)**

**{**

**if (arr[position] > arr[j])**

**position = j;**

**}**

**if (position != i)**

**{**

**swap = arr[i];**

**arr[i] = arr[position];**

**arr[position] = swap;**

**}**

**}**

**for (i = 0; i < n; i++)**

**printf("%d\t", arr[i]);**

**return 0;**

**}**

**OUTPUT:**

**Enter the number of elements: 4**

**Enter number1: 3**

**Enter number2: 2**

**Enter number3: 1**

**Enter number4: 4**

**1 2 3 4**

**//8 BUBBLE SORT**

**#include <stdio.h>**

**int main()**

**{**

**int array[100], n, c, d, swap;**

**printf("Enter number of elements\n");**

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

**printf("Enter %d integers\n", n);**

**for (c = 0; c < n; c++)**

**scanf("%d", &array[c]);**

**for (c = 0 ; c < n - 1; c++)**

**{**

**for (d = 0 ; d < n - c - 1; d++)**

**{**

**if (array[d] > array[d+1])**

**{**

**swap = array[d];**

**array[d] = array[d+1];**

**array[d+1] = swap;**

**}**

**}**

**}**

**printf("Sorted list in ascending order:\n");**

**for (c = 0; c < n; c++)**

**printf("%d\n", array[c]);**

**return 0;**

**}**

**OUTPUT:**

**Enter number of elements**

**5**

**Enter 5 integers**

**3**

**2**

**4**

**1**

**6**

**Sorted list in ascending order:**

**1**

**2**

**3**

**4**

**6**

**//9 PALINDROME**

**#include <stdio.h>**

**int main()**

**{**

**int n, reversed = 0, remainder, original;**

**printf("Enter an integer: ");**

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

**original = n;**

**while (n != 0)**

**{**

**remainder = n % 10;**

**reversed = reversed \* 10 + remainder;**

**n /= 10;**

**}**

**if (original == reversed)**

**printf("%d is a palindrome.", original);**

**else**

**printf("%d is not a palindrome.", original);**

**return 0;**

**}**

**OUTPUT:**

**Enter an integer: 1234321**

**1234321 is a palindrome**