Program 1:

#include <stdio.h>

int main()

{

int a, b;

printf("Input 2 numbers: ");

scanf("%d %d", &a, &b);

a=a+b;

b=a-b;

a=a-b;

printf("The swapped numbers are: %d, %d", a, b);

}

Program 2:

#include<stdio.h>

int main()

{

int n;

printf("Enter a year: ");

scanf("%d", &n);

if (n%4==0)

printf("It is a leap year");

else

printf("It is not a leap year");

}

Program 3:

#include <stdio.h>

int main()

{

int a,b,c,x,y,z;

printf("Enter the 3 sides of the traingle");

scanf("%d %d %d", &a, &b, &c);

x=b\*b + c\*c;

y=c\*c + a\*a;

z=a\*a + b\*b;

if (a\*a==x || b\*b==y || c\*c==z)

printf("Right angled triangle");

else

printf("Not a right angles triangle");

}

Program 4:

#include<stdio.h>

int main()

{

int n,m, sum=0 ;

printf("Input the lower limit: ");

scanf("%d", &n);

printf("Input the upper limit: ");

scanf("%d", &m);

for (int i=n; i<=m; i++)

{

sum=0;

for (int j=2; j<i; j++)

{

if (i%j==0)

{

sum=sum+1;

}

}

if (sum==0)

printf(" %d ", i);

}

}

Program 5:

#include<stdio.h>

int main()

{

int r, c;

printf("Input the number of rows");

scanf("%d", &r);

printf("Input the number of columns");

scanf("%d", &c);

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

{

for (int j=1; j<=c-i; j++)

printf(" ");

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

printf("\* ");

printf("\n");

}

}

Program 6:

#include <stdio.h>

int main()

{

int n, i;

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

scanf("%d", &n);

int arr[n];

printf("Enter the elements: \n");

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

{

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

}

int max=arr[0];

for(int k=0; k<n; k++)

{

if (arr[k]>max)

max=arr[k];

}

printf("The largest element in the array is %d \n", max);

int min=arr[0];

for(int l=0; l<n; l++)

{

if (arr[l]<min)

min=arr[l];

}

printf("The smallest element in the array is %d", min);

}

Program 7:

#include <stdio.h>

int main()

{

int n, i;

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

scanf("%d", &n);

int arr[n];

printf("Enter the elements: \n");

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

{

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

}

int x;

printf("Enter the desired sum");

scanf("%d", &x);

for (int j=0; j<n; j++)

{

int a= arr[j];

for (int k=j+1; k<n; k++)

{

int b= x-a;

int c=b-arr[j+1];

for (int l=k+1; l<n; l++)

{

if (c==arr[l])

{

int d=b-c;

printf("%d %d %d\n", a,d,c);

}

}

}

}

}

Program 10:

#include <stdio.h>

#include <math.h>

int main()

{

int i, n, x=0, cube=0, sum=0;

printf("Input a number: ");

scanf("%d", &n);

i=n;

while (n!=0)

{

x=n%10;

cube=pow(x,3);

sum=sum+cube;

n=n/10;

}

if (sum==i)

printf("Armstrong number");

else

printf("Not an armstrong number");

}