1.Amstrong

2.Buffaloes

3.Circle

4.Combination

5.Diamond Star Pattern

6.Go to

7.Half Diamond Star Pattern

8.Hinh Tru

9.Hollow inverted Mirrored right triangle star pattern

10.Hollow inverted right triangle star pattern

11.Hollow pyramid strar pattern

12. Hollow mirrored rhom bus star pattern

13.Hollow square pattern with diagonal

14.Inverted hollow pyramid star pattern

15.Inverted mirrored right triangle star pattern

16. Inverted pyramid star pattern

17. Inverted right triangle star pattern

18.Number to String

19.PalindromeString

20.Plus star pattern

21.Power\_x\_y

22. Pyramid star pattern

23.Queue

24.ReadFile EOF

25. ReadFile EOF Table

26.Rhom bus star pattern

27.Right arrow star pattern

28. Right triangle star pattern

29.Sort in Char

30.Square Star Pattern

31.Stack

32.X star pattern

33.LMC Euclid

34.Left arrow star pattern

35.Malloc

36.Mirrow Rhom bus star pattern

37.Mirrowed right triangle star pattern

1.

#include<stdio.h>

#include<stdlib.h>

main()

{

int a, b, c, bc, abc;//S means Sum, abc is the number, bc is the last two digits, a, b and c are single digits.

for (abc = 100; abc < 1000; abc++)

{

a = abc / 100;//chia 100 lay phan nguyen thi con chu so hang tram

bc = abc - a \* 100;//tru di chu so hang tram

b = bc / 10;//lay hang chuc

c = bc - b \* 10;//lay hang don vi

if (abc == a\*a\*a + b\*b\*b + c\*c\*c)

{

printf("%d\n", abc);

}

}

system("pause");

}

2.

#include<stdio.h>

#include<stdlib.h>

main()

{

int d,n,g;

printf("Cac truong hop co the xay ra la:\n");

for (d = 1; d <= 100; d++)

{

for (n = 1; n <= 100; n++)

{

for ( g = 1; g < 100; g++)

{

if (d+n+g==100 && g%3==0 && 5\*d+3\*n+g/3==100)

{

printf("%d trau dung, %d trau nam, %d trau gia.\n", d, n, g);

}

}

}

}

system("pause");

}

3.

#include<stdio.h>

#include<stdlib.h>

main()

{

double r, C, S, pi = 3.14;

printf("This application can help you calculate the perimeter and area of a circle.\n");

do

{

printf("Enter the radius of your circle here, enter 0 to end.\n");

scanf\_s("%lf", &r);

if (r == 0)

{

break;

}

else

{

C = r \* 2 \* 3.14;

S = r \* r \* 3.14;

printf("The perimeter of your circle is %.3lf\n", C);

printf("The area of your circle is %.3lf\n", S);

}

} while (1);

system("pause");

}

4.

#include<stdio.h>

#include<stdlib.h>

int fac(int n)

{

int i, s = 1;

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

{

s \*= i;

}

return s;

}

main()

{

int n, k, C;

printf("This program can help you calculate a Combination ( C k/n).\n");

do

{

printf("Enter k here, enter 0 to exit:\n");

scanf\_s("%d", &k);

if (k == 0)

{

printf("C= 1\n");

break;

}

else

{

printf("Enter n here:\n");

scanf\_s("%d", &n);

if (k > n)

{

printf("Remember, k is never greater than n. Please try again.\n");

}

else

{

C = (fac(n)) / (fac(k)\*fac(n - k));

printf("C = %d\n", C);

}

}

} while (1);

system("pause");

}

5.

#include <stdio.h>

int main(void)

{

int n,i,j,k;

printf("Enter the number of rows\n");

scanf("%d",&n);

int spaces=n-1;

int stars=1;

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

{

for(j=1;j<=spaces;j++)

{

printf(" ");

}

for(k=1;k<=stars;k++)

{

printf("\*");

}

if(spaces>i)

{

spaces=spaces-1;

stars=stars+2;

}

if(spaces<i)

{

spaces=spaces+1;

stars=stars-2;

}

printf("\n");

}

return 0;

}

6.

#include <stdio.h>

//Gia tri cua a: 10

//Gia tri cua a: 11

//Gia tri cua a: 12

//Gia tri cua a: 13

//Gia tri cua a: 14

//Gia tri cua a: 16

//Gia tri cua a: 17

//Gia tri cua a: 18

//Gia tri cua a: 19

int main () {

int a = 10;

TEST:do {

if( a == 15) {

// quay ve do khi a = 15 (bo qua lenh print)

a = a + 1;

goto TEST;

}

printf("Gia tri cua a: %d\n", a);

a++;

} while( a < 20 );

return 0;

}

7.

#include <stdio.h>

int main()

{

int n,m=1,i,j;

printf("Enter the number of columns");

scanf("%d",&n);

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

{

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

{

printf("\*");

}

printf("\n");

}

for(i=n-1;i>=1;i--)

{

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

8.

#include<stdio.h>

#include<stdlib.h>

main()

{

double R, h, SDAY, SXQ, STP, V, pi = 3.14;

printf("This program can help you calculate the base , lateral and surface area and the volume of a cylinder.\n");

printf("Enter the radius of the bottom here\n");

scanf\_s("%lf", &R);

printf("Enter the height here\n");

scanf\_s("%lf", &h);

SDAY = R \* R\*pi;

SXQ = 2 \* pi\*R\*h;

V = SDAY \* h;

STP = SXQ + SDAY \* 2;

printf("The base area of the cylinder is %lf\n", SDAY);

printf("The lateral area of the cylinder is %lf\n", SXQ);

printf("The surface area of the cylinder is %lf\n", STP);

printf("The volume of the cylinder is %lf\n", V);

system("pause");

}

9.

#include <stdio.h>

int main()

{

int n,m, i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

m=n;

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

{

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

{

printf(" ");

}

for(k=1;k<=m;k++)

{

if(i==1 || k==1 || k==m)

printf("\*");

else

printf(" ");

}

m--;

printf("\n");

}

return 0;

}

10.

#include <stdio.h>

int main()

{

int n,m=1, i,j;

printf("Enter the number of rows");

scanf("%d",&n);

for(i=n;i>=1;i--)

{

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

{

if(j==1 || j==i || i==n)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

11.

#include <stdio.h>

int main()

{

int n,m,i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

m=n;

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

{

for(j=1;j<=m-1;j++)

{

printf(" ");

}

for(k=1;k<=2\*i-1;k++)

{

if(k==1 || k==2\*i-1 || i==n)

printf("\*");

else

printf(" ");

}

m--;

printf("\n");

}

return 0;

}

12.

#include <stdio.h>

int main()

{

int i,j,k,n,m;

printf("Enter the number of rows");

scanf("%d",&n);

m=n;

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

{

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

{

printf(" ");

}

for( k=1;k<=m;k++)

{

if(i==1 || k==1 || k==m)

printf("\*");

else

printf(" ");

}

m--;

printf("\n");

}

return 0;

}

13.

#include <stdio.h>

int main()

{

int i,j,n;

printf("Enter the number of rows");

scanf("%d",&n);

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

{

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

{

if(i==1 ||i==n||j==1||j==n-i+1||i==j||j==n)

{

printf("\*");

}

else

{

printf(" ");

}

}

printf("\n");

}

return 0;

}

14.

#include <stdio.h>

int main()

{

int n,m=1,i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

for(i=n;i>=1;i--)

{

for(j=1;j<m;j++)

{

printf(" ");

}

for(k=1;k<=2\*i-1;k++)

{

if(k==1 || k==2\*i-1 || i==n)

printf("\*");

else

printf(" ");

}

m++;

printf("\n");

}

return 0;

}

15.

#include <stdio.h>

int main()

{

int n,m,i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

m=n;

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

{

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

{

printf(" ");

}

for(k=1;k<=m;k++)

{

printf("\*");

}

m--;

printf("\n");

}

return 0;

}

16.

#include <stdio.h>

int main()

{

int n,m=1,i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

for(i=n;i>=1;i--)

{

for(j=1;j<m;j++)

{

printf(" ");

}

for(k=1;k<=2\*i-1;k++)

{

printf("\*");

}

m++;

printf("\n");

}

return 0;

}

17.

#include <stdio.h>

int main()

{

int n,m=1,i,j;

printf("Enter the number of rows");

scanf("%d",&n);

for(i=n;i>=1;i--)

{

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

18.

#include <stdio.h>

#include <stdlib.h>

int main ()

{

int i;

char buffer [33];

printf ("Enter a number: ");

scanf ("%d",&i);

itoa (i,buffer,10);

printf ("decimal: %s\n",buffer);

itoa (i,buffer,16);

printf ("hexadecimal: %s\n",buffer);

itoa (i,buffer,2);

printf ("binary: %s\n",buffer);

return 0;

}

19.

#include <stdio.h>

#include <string.h>

int palin(char s[]){

char str[255];

strcpy(str,s); //tuong duong voi phep gan

//dung strrev no se bien doi str va tu dong gan

if(strcmp(s,strrev(str))==0) { //strcpm la so sanh, neu =0 thi bang nhau

return 1;

}else return 0;

}

int main(){

char s[255];

printf("Nhap xau: ");scanf("%s",s);

printf("Xau nay co phai la Palindrome khong: ");

if(palin(s)==0){

printf("Khong");

}else{

printf("Co");

}

return 0;

}

20.

#include <stdio.h>

int main()

{

int n,i,j;

printf("Enter the odd number only");

scanf("%d", &n);

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

{

if(i==((n/2)+1))

{

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

{

printf("+");

}

}

else

{

for(j=1;j<=n/2;j++)

{

printf(" ");

}

printf("+");

}

printf("\n");

}

return 0;

}

21.

#include<stdio.h>

#include<stdlib.h>

int power(int x, int y)

{

int S = 1;

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

{

S \*= x;

}

return S;

}

main()

{

int x, y, S = 1;

printf("This program can help you calculate x^y.\n");

printf("=================================\n");

do

{

printf("Enter x here enter 0 to exit.\n");

scanf\_s("%d", &x);

if (x == 0)

{

printf("0^n = 0\n");

break;

}

else

{

printf("Enter y here\n");

scanf\_s("%d", &y);

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

{

S \*= x;

}

printf("%d^%d = %d\n\n", x, y, power(x, y));

}

} while (1);

system("pause");

}

**22.**

#include <stdio.h>

int main()

{

int n,m,i,j,k;

printf("Enter the number of rows");

scanf("%d",&n);

m=n;

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

{

for(j=1;j<=m-1;j++)

{

printf(" ");

}

for(k=1;k<=2\*i-1;k++)

{

printf("\*");

}

m--;

printf("\n");

}

return 0;

}

**23.**

#include <stdio.h>

#include <stdbool.h>

int queue[100]; // mang hang doi

int MAXSIZE=100; // kick thuoc hang doi

int front=0; // danh dau vi tri dau tien cua hang

int rear=-1; // danh dau vi tri cuoi cua hang

bool isFull(){ //kiem tra hang doi co full ko

return rear == MAXSIZE - 1 ? true : false;

}

bool isEmpty(){ //kiem tra hang doi co rong ko

return (front < 0 || front > rear) ? true : false;

}

void enQueue(int data){ //them phan tu vao hang

if(isFull()){

printf("Queue full");

}

rear++;

queue[rear]=data;

}

void deQueue(){ //xoa phan tu khoi hang

if(isEmpty()){

printf("Queue null");

}

queue[front]=0;

front++;

}

int peek(){ //lay phan tu dau hang

return queue[front];

}

void peekAll(){ //lay tat ra cac phan tu khoi hang

while(!isEmpty()){

int data=peek();

deQueue();

printf("%d ",data);

}

}

int main(){

enQueue(5);

enQueue(9);

enQueue(7);

enQueue(8);

peekAll();

return 0;

}

**24.**

#include <stdio.h>

#include <string.h>

// readfile

// c=fgetc(fp)

// fgets(s,10,fp);

// while(fscanf(fp,"[^\n]%\*c",str) != EOF)

// int feof(file) diem cuoi cua file

int main(){

FILE \*fp=NULL;

char str[61];

fp=fopen("C:\\Users\\DELL\\Desktop\\CAC DANG BAI TAP TRONG C\\CO BAN\\READ FILE EOF\\spring.txt","r");

if(fp!=NULL){

while(fscanf(fp,"%60[^\n]%\*c",str) != EOF){

printf("%s\n",strrev(str));

}

rewind(fp); //doc lai tu dau file

printf("Read again \n");

while(fscanf(fp,"%60[^\n]%\*c",str) != EOF){

printf("%s\n",str);

}

fclose(fp);

} else {

printf("Failed to open file\n");

}

return 0;

}

**25.**

#include <stdio.h>

#include <string.h>

// readfile

// c=fgetc(fp)

// fgets(s,10,fp);

// while(fscanf(fp,"[^\n]%\*c",str) != EOF)

// int feof(file) diem cuoi cua file

int main(){

FILE \*fp=NULL;

char str[255];

int n;

fp=fopen("C:\\Users\\DELL\\Desktop\\CAC DANG BAI TAP TRONG C\\CO BAN\\READ FILE EOF TABLE\\spring.txt","r");

if(fp!=NULL){

printf("\tWinter Items\n");

printf("----------------------------\n");

while(fscanf(fp,"%d %[^\n]%\*c",&n,str) != EOF){

printf("%6d %-20s\n",n,str);

}

fclose(fp);

} else {

printf("Failed to open file\n");

}

return 0;

}

**26.**

#include <stdio.h>

int main()

{

int i,j,n,k;

printf("Enter the number of rows");

scanf("%d",&n);

for( i=n;i>=1;i--)

{

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

{

printf(" ");

}

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

**27.**

#include <stdio.h>

int main(void) {

int n,i,j,k;

printf("Enter the number of columns");

scanf("%d",&n);

//printing the upper part of the pattern..

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

{

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

{

printf(" ");

}

for(k=1;k<=n-i;k++)

{

printf("\*");

}

printf("\n");

}

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

{

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

{

printf(" ");

}

for(k=1;k<=i+1;k++)

{

printf("\*");

}

printf("\n");

}

return 0;

}

**28.**

#include <stdio.h>

int main()

{

int i,j,n;

printf("Enter the number of rows");

scanf("%d",&n);

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

{

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

{

printf("\* ");

}

printf("\n");

}

return 0;

}

**29.**

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int i;

char a[255];

for(i=0;i<4;i++){

scanf("%c",&a[i]);

fflush(stdin);

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

int j;

for(i=0;i<3;i++){

for(j=i+1;j<4;j++){

if(a[i]>a[j]){

char temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

for(i=0;i<4;i++){

printf("%d ", a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

return(0);

}

**30.**

#include <stdio.h>

int main()

{

int n,i,j;

printf("Enter the number of rows");

scanf("%d",&n);

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

{

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

**31.**

#include <stdio.h>

#include <conio.h>

int top=-1;

int MAXSIZE=100;

int stack[100];

int isEmpty(){ //kiem tra stack co rong ko

if(top==-1){

return 1;

}else return 0;

}

int isFull(){ //kiem tra stack co full khong

if(top==MAXSIZE){

return 1;

} else return 0;

}

int push(int data){ //them phan tu vao stack

if(!isFull()){

top++;

stack[top]=data;

}else return printf("Stack full");

}

int pop(){ //Lay phan tu ra khoi stack

int data;

if(!isEmpty()){

data=stack[top];

top=top-1;

return data;

}else return printf("Stack null\n");

}

void popall(){ // lay tat ca phan tu ra khoi stack

while(!isEmpty()){

int data=pop();

printf("%d ",data);

}

}

int main(){

push(17);

push(23);

push(03);

push(16);

popall();

getch();

return 0;

}

**32.**

#include <stdio.h>

int main()

{

int n,m,i,j;

printf("Enter the number");

scanf("%d",&n);

m=2\*n-1;

for(i=1;i<=m;i++)

{

for(j=1;j<=m;j++)

{

if(i==j || j==(m-i+1))

{

printf("\*");

}

else

{

printf(" ");

}

}

printf("\n");

}

return 0;

}

**33.**

#include<stdio.h>

#include<stdlib.h>

int LCM(int a, int b)

{

int x;

while (1)//always true

{

x = a % b;

if (x == 0)

{

break;//see the reason in the link.

}

else

{

a = b;

b = x;

}

}

return b;

}

main()

{

int a, b;

printf("This program can find out the largest common multiplier (LCM) of two numbers.\n");

do

{

printf("Insert the greater number here, enter 0 to exit:\n");

scanf\_s("%d", &a);

if (a == 0)

{

break;

}

else

{

printf("Insert the smaller number here:\n");

scanf\_s("%d", &b);

if (b > a)

{

printf("Hey, enter the greater number first.\n");

}

else

{

printf("The LCM of your numbers is %d.\n", LCM(a, b));

}

}

} while (1);

printf("\n=================================\n");

printf("Written by Tamkien Cao. Thank you for using my application!\n");

//credit line, neu xoa dong nay ctrinh se ko chay duoc;

system("pause");

}

#include<stdio.h>

#include<stdlib.h>

int LCM(int a, int b)

{

int x;

while (1)//always true

{

x = a % b;

if (x == 0)

{

break;//see the reason in the link.

}

else

{

a = b;

b = x;

}

}

return b;

}

main()

{

int a, b;

printf("This program can find out the largest common multiplier (LCM) of two numbers.\n");

do

{

printf("Insert the greater number here, enter 0 to exit:\n");

scanf\_s("%d", &a);

if (a == 0)

{

break;

}

else

{

printf("Insert the smaller number here:\n");

scanf\_s("%d", &b);

if (b > a)

{

printf("Hey, enter the greater number first.\n");

}

else

{

printf("The LCM of your numbers is %d.\n", LCM(a, b));

}

}

} while (1);

system("pause");

}

**34.**

#include <stdio.h>

int main(void)

{

int n,i,j,k;

printf("Enter the number of columns");

scanf("%d",&n);

//printing the upper part of the pattern..

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

{

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

{

printf(" ");

}

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

{

printf("\*");

}

printf("\n");

}

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

{

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

{

printf(" ");

}

for(k=1;k<=i+1;k++)

{

printf("\*");

}

printf("\n");

}

return 0;

}

**35.**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int i,n, \*x;

printf("nhap n: "); scanf("%d",&n);

x=(int\*)malloc(n\*sizeof(int));

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

{

printf("a[%d]= ",i+1);

scanf("%d",(x+i));

}

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

printf("%d ",\*(x+i));

return 0;

}

**36.**

#include <stdio.h>

int main()

{

int i,j,k,n;

printf("Enter the number of rows");

scanf("%d",&n);

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

{

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

{

printf(" ");

}

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

**37.**

#include <stdio.h>

int main()

{

int i,k,j,n,m=1;

printf("Enter the number of rows");

scanf("%d",&n);

for( i=n;i>=1;i--)

{

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

{

printf(" ");

}

for( k=1;k<=m;k++)

{

printf("\*");

}

printf("\n");

m++;

}

return 0;

}