Q1.

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int a,b,c;

printf("Enter 3 numbers ");

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

if (a==b && a==c)

printf("1 Distinct value only");

else if (a==b && a!=c || a==c && a!=b)

printf("2 distinct values");

else if (a!=b && a!=c)

printf("3 Distinct values");

return 0;

}

Q2.

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int m,d;

printf("Input Month: ");

scanf("%d",&m);

printf("Input Day: ");

scanf("%d",&d);

if ((d>=22 && d<=31 && m==12) || (d<=19 && d<=31 && m==1))

printf("Your Zodiac Sign is Capricon");

else if ((d>=20 && d<=31 && m==1) || (d<=17 && m==2))

printf("Your Zodiac Sign is Aquarius");

else if ((d>=18 && d<=30 && m==2) || (d<=19 && m==3))

printf("Your Zodiac Sign is Pisces");

else if ((d>=20 && d<=31 && m==3) || (d<=19 && m==4))

printf("Your Zodiac Sign is Aries");

else if ((d>=20 && d<=30 && m==4) || (d<=20 && m==5))

printf("Your Zodiac Sign is Taurus");

else if ((d>=21 && d<=31 && m==5) || (d<=20 && m==6))

printf("Your Zodiac Sign is Gemini");

else if ((d>=21 && d<=30 && m==6) || (d<=22 && m==7))

printf("Your Zodiac Sign is Cancer");

else if ((d>=23 && d<=31 && m==7) || (d<=22 && m==8))

printf("Your Zodiac Sign is Leo");

else if ((d>=23 && d<=30 && m==8) || (d<=22 && m==9))

printf("Your Zodiac Sign is Virgo");

else if ((d>=23 && d<=31 && m==9) || (d<=22 && m==10))

printf("Your Zodiac Sign is Libra");

else if ((d>=23 && d<=30 && m==10) || (d<=21 && m==11))

printf("Your Zodiac Sign is Aries");

else if ((d>=22 && d<=31 && m==11) || (d<=21 && m==12))

printf("Your Zodiac Sign is Aries");

else

printf("Error! Wrong Date");

return 0;

}

Q3.

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int n,i,j;

printf("Enter N: ");

scanf("%d",&n);

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

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

if(i%2==0){

printf(" ");

printf("\* ");}

else if(i%2!=0){

printf("\* ");

printf(" ");}

}

printf("\n");

}

return 0;

}

Q4.

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int n,i;

printf("Enter N: ");

scanf("%d",&n);

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

if (i%10==1 && i!=11 && i!=12 && i!=13)

printf("%dst Hello\n",i);

else if (i%10==2 && i!=11 && i!=12 && i!=13)

printf("%dnd Hello\n",i);

else if (i%10==3 && i!=11 && i!=12 && i!=13)

printf("%drd Hello\n",i);

else if (i%100==1 && i!=11 && i!=12 && i!=13)

printf("%dst Hello\n",i);

else if (i%100==2 && i!=11 && i!=12 && i!=13)

printf("%dnd Hello\n",i);

else if (i%100==3 && i!=11 && i!=12 && i!=13)

printf("%drd Hello\n",i);

else

printf("%dth Hello\n",i);

}

return 0;

}

Q5.

Full Pyramid;

#include <stdio.h>

int main() {

int i, space, n, j = 0, count = 0, countnew= 0;

printf("Enter N: ");

scanf("%d", &n);

printf("\n");

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

for (space = 1; space <= n - i; ++space) {

printf(" ");

++count;

}

do {

if (count <= n - 1) {

printf("%d ", i + j);

++count;

} else {

++countnew;

printf("%d ", (i + j - 2 \* countnew));

}

++j;

} while (j != 2 \* i - 1);

countnew =0;

count =0;

j = 0;

printf("\n");

}

return 0;

}

Half Pyramid;

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int i,j,n;

printf("Enter n: ");

scanf("%d",&n);

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

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

printf("%d ",j);

}

printf("\n");

}

return 0;

}

Hollow Full Pyramid;

/\*\*

\* C program to print hollow pyramid triangle star pattern

\*/

#include <stdio.h>

int main()

{

int i, j, rows;

printf("Enter number of rows : ");

scanf("%d", &rows);

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

{

/\* Print spaces \*/

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

{

printf(" ");

}

/\* Print hollow pyramid \*/

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

{

if(i==rows || j==1 || j==(2\*i-1))

{

printf(" %d",j);

}

else

{

printf(" ");

}

}

/\* Move to next line \*/

printf("\n");

}

return 0;

}

Hollow Half Pyramid;

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int i,j,k,n;

printf("Enter n: ");

scanf("%d",&n);

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

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

if(i>2 && j==1 || j==i-1 ){

printf(" %d",j);

}

else

printf(" ");

}

printf("\n");

if(i==n){

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

printf(" %d",k);

}

}

}

return 0;

}

Inverted Half Pyramid;

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int i,j,n;

printf("Enter n: ");

scanf("%d",&n);

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

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

printf("%d ",j);

}

printf("\n");

}

return 0;

}

Inverted Hollow Half Pyramid

#include <stdio.h>

#include <stdlib.h>

/\* run this program using the console pauser or add your own getch, system("pause") or input loop \*/

int main(int argc, char \*argv[]) {

int i,j,k,n;

printf("Enter n: ");

scanf("%d",&n);

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

if(i==n){

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

printf(" %d",k);

}

}

else{

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

if(i>=2 && j==1 || j==i ){

printf(" %d",j);

}

else

printf(" ");

}

}

printf("\n");

}

return 0;

}