

Question 1: Write a program to print the following pattern:

1
12
123

Coding:-

//Program to print the given pattern

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,j;
```

```
    clrscr();
```

```
    for(i=1;i<=3;i++)
```

```
    {
```

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

```
        {
```

```
            printf("%d ",j);
```

```
        }
```

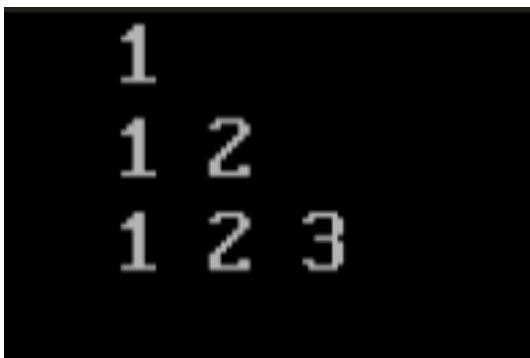
```
        printf("\n");
```

```
    }
```

```
    getch();
```

```
}
```

Output:-



```
1
1 2
1 2 3
```

Question 2: Write a program to print the following pattern:

1

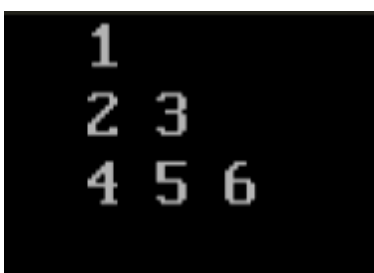
23

456

Coding:-

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j;
    int n=1;
    clrscr();
    for(i=1;i<=3;i++)
    {
        for(j=1;j<=i;j++)
        {
            printf("%d ",n);
            n++;
        }
        printf("\n");
    }
    getch();
}
```

Output:-



```
1
2 3
4 5 6
```

Question 3: Write a program to print the following pattern:

```
*  
* *  
* * *
```

Coding:-

```
#include<stdio.h>  
#include<conio.h>  
void main()  
{  
    int i,j,k;  
    clrscr();  
    for(i=1;i<=3;i++)  
    {  
        for(j=i;j<=3;j++)  
        {  
            printf(" ");  
        }  
        for(k=1;k<=i;k++)  
        {  
            printf("* ");  
        }  
        printf("\n");  
    }  
    getch();  
}
```

Output:-



Question 4: Write a program to input 10 numbers from the keyboard in an array and print that number using the pointer.

Coding:-

```
//Program to input 10 numbers through array and print using pointer
```

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i;
```

```
    int a[10];
```

```
    clrscr();
```

```
    printf("Enter 10 numbers: \n");
```

```
    for(i=0;i<10;i++)
```

```
    {
```

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

```
    }
```

```
    printf("Entered elements are: \n");
```

```
    for(i=0;i<10;i++)
```

```
    {
```

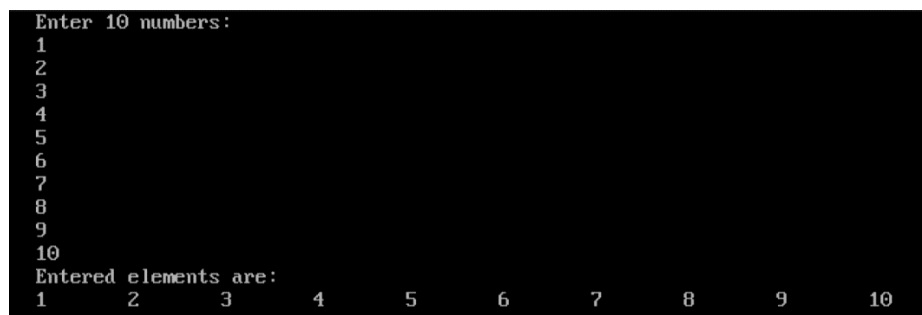
```
        printf("%d\t",*(a+i));
```

```
    }
```

```
    getch();
```

```
}
```

Output:-



```
Enter 10 numbers:
1
2
3
4
5
6
7
8
9
10
Entered elements are:
1      2      3      4      5      6      7      8      9      10
```

Question 5: Write a program to print the following series:

55555

4444

333

22

1

Coding:-

//Program to print the given pattern

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,j,k;
```

```
    clrscr();
```

```
    for(i=5;i>=1;i--)
```

```
    {
```

```
        for(j=5;j>=i;j--)
```

```
        {
```

```
            printf(" ");
```

```
        }
```

```
        for(k=i;k>=1;k--)
```

```
        {
```

```
            printf("%d",i);
```

```
        }
```

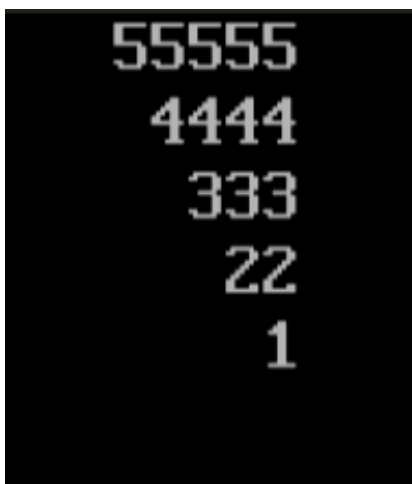
```
        printf("\n");
```

```
    }
```

```
    getch();
```

```
}
```

Output:-



```
55555
 4444
  333
   22
    1
```

Question 6: Write a program to print table of 1 to 10 using for loop.

Coding:-

```
//Program to print multiplication table 1 to 10
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,j,m;
    clrscr();
    for(i=1;i<=10;i++)
    {
        printf("Multiplication Table of %d.\n",i);
        for(j=1;j<=10;j++)
        {
            m=i*j;
            printf("%dx%d=%d\t",i,j,m);
        }
    }
    getch();
}
```

Output:-

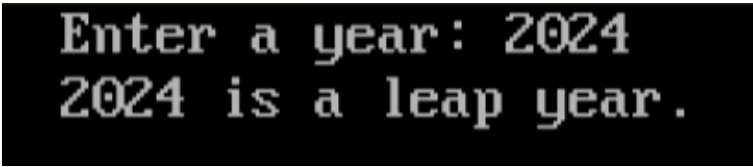
```
Multiplication Table of 1.
1x1=1  1x2=2  1x3=3  1x4=4  1x5=5  1x6=6  1x7=7  1x8=8  1x9=9  1x10=10
Multiplication Table of 2.
2x1=2  2x2=4  2x3=6  2x4=8  2x5=10  2x6=12  2x7=14  2x8=16  2x9=18  2x10=20
Multiplication Table of 3.
3x1=3  3x2=6  3x3=9  3x4=12  3x5=15  3x6=18  3x7=21  3x8=24  3x9=27  3x10=30
Multiplication Table of 4.
4x1=4  4x2=8  4x3=12  4x4=16  4x5=20  4x6=24  4x7=28  4x8=32  4x9=36  4x10=40
Multiplication Table of 5.
5x1=5  5x2=10  5x3=15  5x4=20  5x5=25  5x6=30  5x7=35  5x8=40  5x9=45  5x10=50
Multiplication Table of 6.
6x1=6  6x2=12  6x3=18  6x4=24  6x5=30  6x6=36  6x7=42  6x8=48  6x9=54  6x10=60
Multiplication Table of 7.
7x1=7  7x2=14  7x3=21  7x4=28  7x5=35  7x6=42  7x7=49  7x8=56  7x9=63  7x10=70
Multiplication Table of 8.
8x1=8  8x2=16  8x3=24  8x4=32  8x5=40  8x6=48  8x7=56  8x8=64  8x9=72  8x10=80
Multiplication Table of 9.
9x1=9  9x2=18  9x3=27  9x4=36  9x5=45  9x6=54  9x7=63  9x8=72  9x9=81  9x10=90
Multiplication Table of 10.
10x1=10 10x2=20 10x3=30 10x4=40 10x5=50 10x6=60 10x7=70 10x8=80 10x9=90 10x10=100
0
```

Question 7: Write a program to which will input a year (like 2022) and find out whether it is a leap year or not.

Coding:-

```
//Program to find entered year is leap year or not
#include<stdio.h>
#include<conio.h>
void main()
{
    int year;
    clrscr();
    printf("Enter a year: ");
    scanf("%d",&year);
    if(year%400==0)
    {
        printf("%d is a leap year.",year);
    }
    else if(year%4==0&&year%100!=0)
    {
        printf("%d is a leap year.",year);
    }
    else
    {
        printf("%d is not a leap year.",year);
    }
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The first line shows the prompt 'Enter a year: ' followed by the input '2024'. The second line shows the output '2024 is a leap year.'

Question 8: Write a program to convert temperature from degree Centigrade to degree in Fahrenheit.

Coding:-

```
//Program to convert temperature from centigrade to fahrenheit
```

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
float c,f;
```

```
clrscr();
```

```
printf("Enter temperature in centigrade: ");
```

```
scanf("%f",&c);
```

```
f=(c*1.8)+32;
```

```
printf("%f degree centigrade in fahrenheit=%f",c,f);
```

```
getch();
```

```
}
```

Output:-

```
Enter temperature in centigrade: 98
98.000000 degree centigrade in fahrenheit=208.399994_
```


Question 9: Write a program using switch statement that will examine the value of integer type variables called day and print according to the number i.e. 1 for Monday 2 for Tuesday and so on.

Coding:-

```
//Program to print day using switch case
#include<stdio.h>
#include<conio.h>
void main()
{
    int day;
    clrscr();
    printf("1.MONDAY\n");
    printf("2.TUESDAY\n");
    printf("3.WEDNESDAY\n");
    printf("4.THURSDAY\n");
    printf("5.FRIDAY\n");
    printf("6.SATURDAY\n");
    printf("7.SUNDAY\n");
    printf("Enter a no. to display the day: ");
    scanf("%d",&day);
    switch(day)
    {
        case 1:printf("MONDAY");
        break;
        case 2:printf("TUESDAY");
        break;
        case 3:printf("WEDNESDAY");
        break;
        case 4:printf("THURSDAY");
        break;
        case 5:printf("FRIDAY");
        break;
        case 6:printf("SATURDAY");
        break;
        case 7:printf("SUNDAY");
        break;
        default:printf("Wrong Choice! Please enter a valid input.");
    }
    getch();
}
```

Output:-

```
1.MONDAY
2.TUESDAY
3.WEDNESDAY
4.THURSDAY
5.FRIDAY
6.SATURDAY
7.SUNDAY
Enter a no. to display the day: 6
SATURDAY
```