

# ASSIGNMENT 08

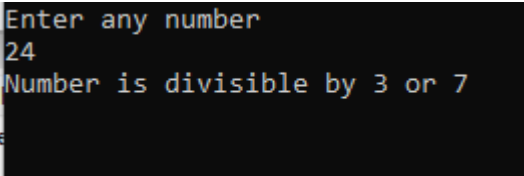
```
1. #include<stdio.h>
#include<conio.h>
int main()
{
    int num;
    printf("Enter any number\n");
    scanf("%d",&num);
    if(num%2==0 && num%3==0)
        printf("Number is divisible by both 2 and 3");
    else
        printf("Number is not divisible by both 2 and 3");
    getch();
}
```

```
Enter any number
24
Number is divisible by both 2 and 3
```

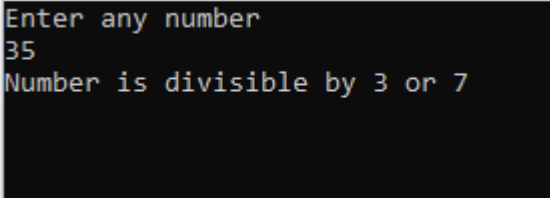
```
Enter any number
15
Number is not divisible by both 2 and 3
```

```
Enter any number
16
Number is not divisible by both 2 and 3
```

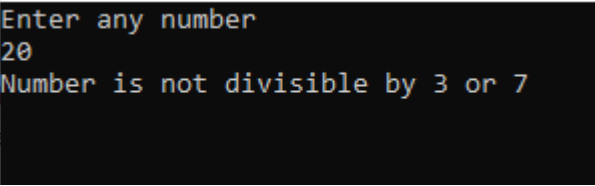
```
2. #include<stdio.h>
#include<conio.h>
int main()
{
    int num;
    printf("Enter any number\n");
    scanf("%d",&num);
    if(num%3==0 || num%7==0)
        printf("Number is divisible by 3 or 7");
    else
        printf("Number is not divisible by 3 or 7");
    getch();
}
```

A screenshot of a terminal window showing the execution of the program. The prompt "Enter any number" is displayed, followed by the user input "24". The program then outputs "Number is divisible by 3 or 7".

```
Enter any number
24
Number is divisible by 3 or 7
```

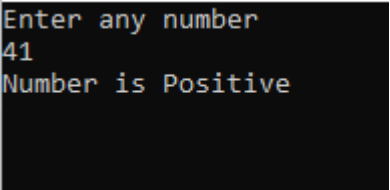
A screenshot of a terminal window showing the execution of the program. The prompt "Enter any number" is displayed, followed by the user input "35". The program then outputs "Number is divisible by 3 or 7".

```
Enter any number
35
Number is divisible by 3 or 7
```

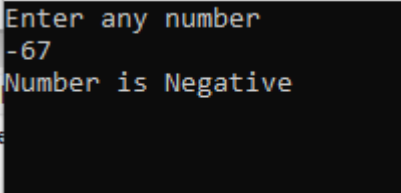
A screenshot of a terminal window showing the execution of the program. The prompt "Enter any number" is displayed, followed by the user input "20". The program then outputs "Number is not divisible by 3 or 7".

```
Enter any number
20
Number is not divisible by 3 or 7
```

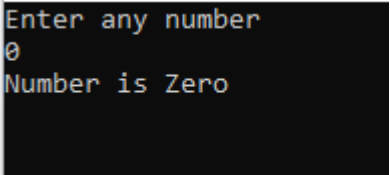
```
3. #include<stdio.h>
#include<conio.h>
int main()
{
    int num;
    printf("Enter any number\n");
    scanf("%d",&num);
    if(num>0)
        printf("Number is Positive");
    else if(num<0)
        printf("Number is Negative");
    else
        printf("Number is Zero");
    getch();
}
```



```
Enter any number
41
Number is Positive
```

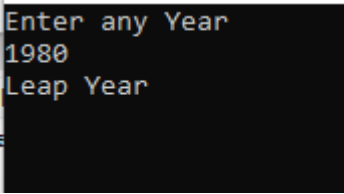


```
Enter any number
-67
Number is Negative
```

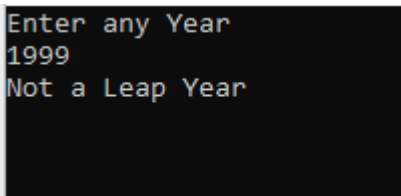


```
Enter any number
0
Number is Zero
```

```
4. #include<stdio.h>
#include<conio.h>
int main()
{
    int year;
    printf("Enter any Year\n");
    scanf("%d",&year);
    if(year%4)
        printf("Not a Leap Year");
    else if(year%100)
        printf("Leap Year");
    else if(year%400)
        printf("Not a Leap Year");
    else
        printf("Leap Year");
    getch();
}
```



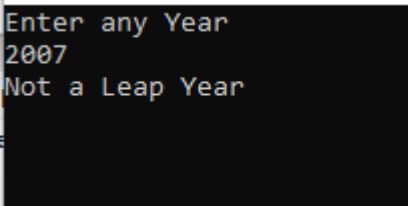
```
Enter any Year
1980
Leap Year
```



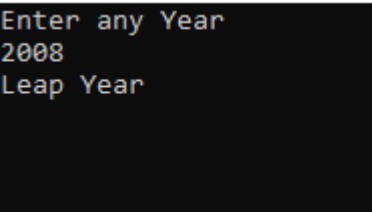
```
Enter any Year
1999
Not a Leap Year
```

OR

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int year;
    printf("Enter any Year\n");
    scanf("%d",&year);
    if(year%100==0)
    {
        if(year%400)
            printf("Not a Leap Year");
        else
            printf("Leap Year");
    }
    else if(year%4)
        printf("Not a Leap Year");
    else
        printf("Leap Year");
    getch();
}
```



Enter any Year  
2007  
Not a Leap Year



Enter any Year  
2008  
Leap Year

```
5. #include<stdio.h>
#include<conio.h>
int main()
{
    int num1,num2,num3;
    printf("Enter three numbers\n");
    scanf("%d %d %d",&num1,&num2,&num3);
    if(num1>num2)
    {
        if(num1>num3)
            printf("%d is greater",num1);
        else
            printf("%d is greater",num3);
    }
    else if(num2>num1)
    {
        if(num2>num3)
            printf("%d is greater",num2);
        else
            printf("%d is greater",num3);
    }
    else if(num1==num2)
        printf("%d is greater",num1);

    else if(num2==num3)
        printf("%d is greater",num2);

    else if(num1==num3)
        printf("%d is greater",num1);

    else if(num1==num2==num3)
        printf("%d is greater",num1);

    getch();
}
```

```
Enter three numbers
23
37
41
41 is greater
```

```
Enter three numbers
18
53
26
53 is greater
```

```
Enter three numbers
22
15
7
22 is greater
```

OR

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int num1,num2,num3;
    printf("Enter three numbers\n");
    scanf("%d %d %d",&num1,&num2,&num3);

    if(num1>num2 && num1>num3)
        printf("%d is greater",num1);

    else if(num2>num1 && num2>num3)
        printf("%d is greater",num2);

    else if(num3>num1 && num3>num2)
        printf("%d is greater",num3);
```

```
else if(num1==num2)
    printf("%d is greater",num1);

else if(num2==num3)
    printf("%d is greater",num2);

else if(num1==num3)
    printf("%d is greater",num3);

else if(num1==num2==num3)
    printf("%d is greater",num1);

    getch();
}
```

```
Enter three numbers
82
71
46
82 is greater
```

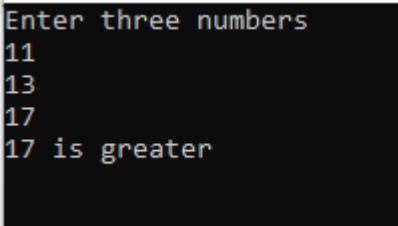
```
Enter three numbers
71
71
54
71 is greater
```

```
Enter three numbers
34
56
87
87 is greater
```

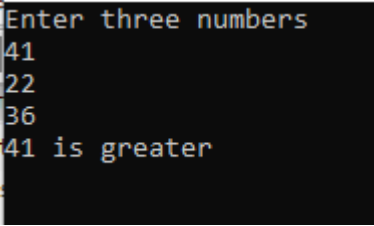


OR

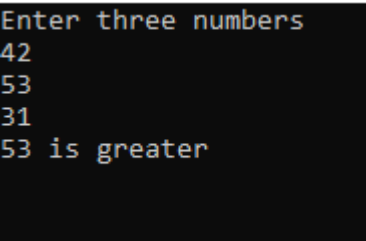
```
#include<stdio.h>
#include<conio.h>
int main()
{
    int num1,num2,num3;
    printf("Enter three numbers\n");
    scanf("%d %d %d",&num1,&num2,&num3);
    (num1>num2?(num1>num3?printf("%d is
greater",num1):printf("%d is
greater",num3)):(num2>num3?printf("%d is
greater",num2):printf("%d is greater",num3)));
    getch();
}
```



```
Enter three numbers
11
13
17
17 is greater
```

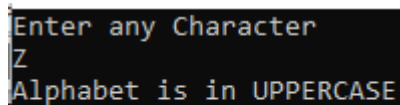


```
Enter three numbers
41
22
36
41 is greater
```

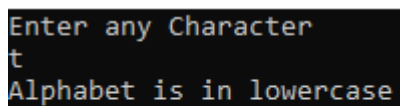


```
Enter three numbers
42
53
31
53 is greater
```

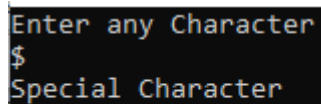
```
6. #include<stdio.h>
#include<conio.h>
int main()
{
    char ch;
    printf("Enter any Character\n");
    scanf("%c",&ch);
    if(ch>='A' && ch<='Z')
        printf("Alphabet is in UPPERCASE");
    else if(ch>='a' && ch<='z')
        printf("Alphabet is in lowercase");
    else
        printf("Special Character");
    getch();
}
```



Enter any Character  
Z  
Alphabet is in UPPERCASE

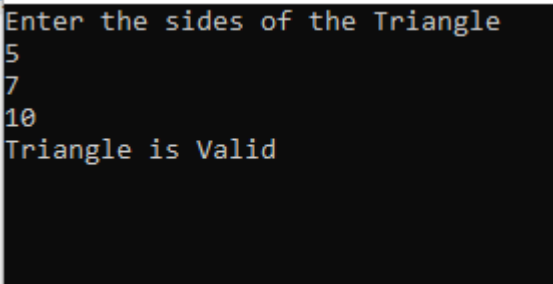


Enter any Character  
t  
Alphabet is in lowercase

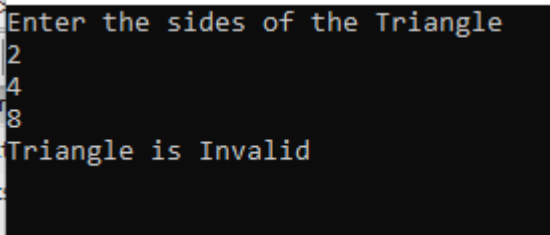


Enter any Character  
\$  
Special Character

```
7. #include<stdio.h>
#include<conio.h>
int main()
{
    int side1,side2,side3;
    printf("Enter the sides of the Triangle\n");
    scanf("%d %d %d",&side1,&side2,&side3);
    if(side1+side2>side3 && side2+side3>side1 &&
side1+side3>side2)
        printf("Triangle is Valid");
    else
        printf("Triangle is Invalid");
    getch();
}
```



```
Enter the sides of the Triangle
5
7
10
Triangle is Valid
```



```
Enter the sides of the Triangle
2
4
8
Triangle is Invalid
```

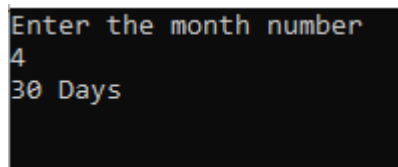
```
8. #include<stdio.h>
#include<conio.h>
int main()
{
    int month_num,year;
    printf("Enter the month number\n");
    scanf("%d",&month_num);
    if(month_num>=1 && month_num<=12)
    {
        if(month_num==2)
        {
            printf("Enter the Year\n");
            scanf("%d",&year);
            if(year%4)
            {
                printf("Not a Leap Year");
                printf("\n28 Days");
            }
            else if(year%100)
            {
                printf("It's a Leap Year");
                printf("\n29 Days");
            }
            else if(year%400)
            {
                printf("Not a Leap Year");
                printf("\n28 Days");
            }
            else
            {
                printf("It's a Leap Year");
                printf("\n29 Days");
            }
        }
    }
}
```

```
        else if(month_num==1 || month_num==3 || month_num==5
|| month_num==7)
            printf("31 Days");

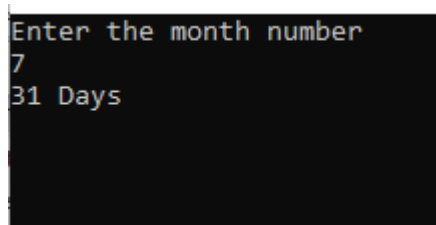
        else if(month_num==4 || month_num==6)
            printf("30 Days");

        else if(month_num==8 || month_num==10
||month_num==12)
            printf("31 Days");

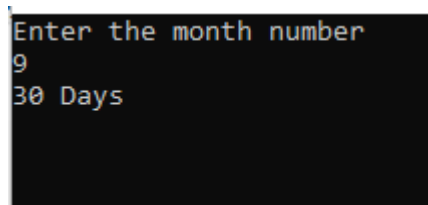
        else if(month_num==9 || month_num==11)
            printf("30 Days");
    }
    else
        printf("Invalid Month Number");
    getch();
}
```



```
Enter the month number
4
30 Days
```



```
Enter the month number
7
31 Days
```



```
Enter the month number
9
30 Days
```

```
Enter the month number
12
31 Days
```

```
Enter the month number
2
Enter the Year
2004
It's a Leap Year
29 Days
```

```
Enter the month number
2
Enter the Year
2005
Not a Leap Year
28 Days
```

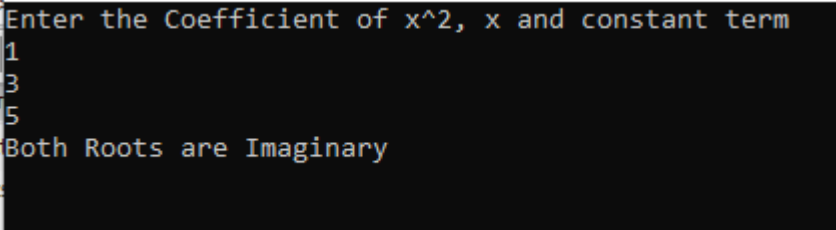
```
Enter the month number
13
Invalid Month Number
```

```

9. #include<stdio.h>
#include<conio.h>
#include<math.h>
int main()
{
    int a,b,c;
    int D;
    float x,y;
    printf("Enter the Coefficient of x^2, x and constant term\n");
    scanf("%d %d %d",&a,&b,&c);
    D=b*b-4*a*c;
    if(D<0)
        printf("Both Roots are Imaginary");

    else if(D==0)
    {
        printf("Both Roots are Equal");
        x=-b/(2.0*a);
        printf("\nRoots are %f and %f",x,x);
    }
    else
    {
        printf("Both Roots are Real and Distinct");
        x=(-b+sqrt(D))/(2.0*a);
        y=(-b-sqrt(D))/(2.0*a);
        printf("\nRoots are %f and %f",x,y);
    }
    getch();
}

```



```

Enter the Coefficient of x^2, x and constant term
1
3
5
Both Roots are Imaginary

```

```
Enter the Coefficient of x^2, x and constant term
1
8
16
Both Roots are Equal
Roots are -4.000000 and -4.000000
```

```
Enter the Coefficient of x^2, x and constant term
1
11
24
Both Roots are Real and Distinct
Roots are -3.000000 and -8.000000
```

```
10. #include<stdio.h>
#include<conio.h>
int main()
{
    int mark1,mark2,mark3,mark4,mark5;
    int total;
    float percent;
    printf("Enter the marks of Five Subjects\n");
    printf("Physics : ");
    scanf("%d",&mark1);
    printf("Chemistry : ");
    scanf("%d",&mark2);
    printf("Biology : ");
    scanf("%d",&mark3);
    printf("Maths : ");
    scanf("%d",&mark4);
    printf("Computer : ");
    scanf("%d",&mark5);
    total=mark1+mark2+mark3+mark4+mark5;
    percent=total/5.0;
    printf("\nTotal Marks Obtained : %d",total);
```



```
if(percent>=90)
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : A");
    printf("\nResult : PASS");
}
else if(percent>=80)
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : B");
    printf("\nResult : PASS");
}
else if(percent>=70)
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : C");
    printf("\nResult : PASS");
}
else if(percent>=60)
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : D");
    printf("\nResult : PASS");
}
else if(percent>=40)
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : E");
    printf("\nResult : PASS");
}
else
{
    printf("\nPercentage : %f",percent);
    printf("\nGrade : F");
    printf("\nResult : FAIL");
}
```

```
}  
    getch();  
}
```

```
Enter the marks of Five Subjects  
Physics : 82  
Chemistry : 93  
Biology : 86  
Maths : 95  
Computer : 97  
  
Total Marks Obtained : 453  
Percentage : 90.599998  
Grade : A  
Result : PASS
```

```
Enter the marks of Five Subjects  
Physics : 75  
Chemistry : 82  
Biology : 78  
Maths : 85  
Computer : 90  
  
Total Marks Obtained : 410  
Percentage : 82.000000  
Grade : B  
Result : PASS
```

```
Enter the marks of Five Subjects  
Physics : 61  
Chemistry : 74  
Biology : 66  
Maths : 88  
Computer : 93  
  
Total Marks Obtained : 382  
Percentage : 76.400002  
Grade : C  
Result : PASS
```

```
Enter the marks of Five Subjects
Physics : 54
Chemistry : 62
Biology : 57
Maths : 75
Computer : 80

Total Marks Obtained : 328
Percentage : 65.599998
Grade : D
Result : PASS
```

```
Enter the marks of Five Subjects
Physics : 41
Chemistry : 56
Biology : 47
Maths : 60
Computer : 75

Total Marks Obtained : 279
Percentage : 55.799999
Grade : E
Result : PASS
```

```
Enter the marks of Five Subjects
Physics : 27
Chemistry : 33
Biology : 25
Maths : 42
Computer : 50

Total Marks Obtained : 177
Percentage : 35.400002
Grade : F
Result : FAIL
```