

Practical No.03

Aim: Programs based on control statement (if, switch)

1. C Program to find out the number is a Pythagoras triplet

Program:

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

void main()
{
    //Examples of If statement

    int a,b,c;

    clrscr();

    printf("Enter three numbers:\t");

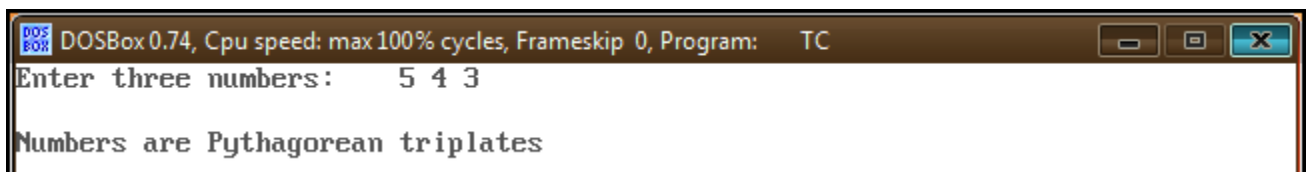
    scanf("%d%d%d",&a,&b,&c);

    if(((a*a)==(b*b)+(c*c)) || ((b*b)==(c*c)+(a*a)) || ((c*c)==(a*a)+(b*b)))
    {
        printf("\nNumbers are Pythagorean triplates");
    }
    else
    {
        printf("\nNumbers are not pythagorean triplates");
    }

    getch();
}
```

Output:

```
Enter three numbers:    5 4 3
Numbers are Pythagorean triplets
```



2. C Program to Relate Two Integers using Nested If...else statement.

Program:

```
// Program to relate two integers using =, > or <

#include<stdio.h>
#include<conio.h>

void main()
{
    int number1, number2;

    clrscr();

    printf("Enter two integers:\t");

    scanf("%d %d", &number1, &number2);

    //checks if two integers are equal.

    if(number1 == number2)
    {
        printf("Result: %d = %d",number1,number2);
    }

    //checks if number1 is greater than number2.

    else if (number1 > number2)
    {
        printf("Result: %d > %d", number1, number2);
    }

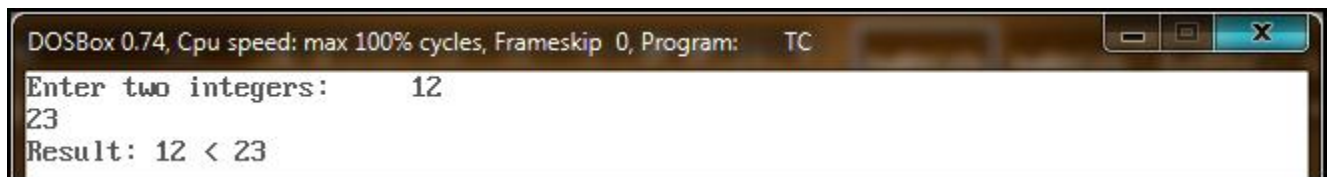
    // if both test expression is false

    else
    {
        printf("Result: %d < %d",number1, number2);
    }

    getch();
}
```

Output:

```
Enter two integers: 12
23
Result: 12 < 23
```



3. C program to print days of week name using switch case

Program:

```
//C program to print day of week using switch case
```

```

#include <stdio.h>
#include <conio.h>

void main()
{
    int week;
    clrscr();

    //Reads week number from user

    printf("Enter week number(1-7): ");
    scanf("%d", &week);

    switch(week)
    {
        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("Invalid input! Please enter week number
between 1-7");
    }

    getch();
}

```

Output:

```

Enter week number(1-7): 1

MONDAY

```



4. C Program to Print 1 To 10 Number using goto statement

Program:

```

//Write a C Program Which Print 1 To 10 Number Using goto statement.

#include<stdio.h>
#include<conio.h>

void main()
{

```

```
int i=1;
clrscr();
count:           //This is Label

printf("%d\n",i);
i++;
if(i<11) {
    goto count;   //This jumps to label "count:"
}
getch();
}
```

Output:

```
1
2
3
4
5
6
7
8
9
10
```

