

1. Write a C program to demonstrate working of logical operator.

Answer -

INPUT -

//Write a C program to demonstrate working of relational operator

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

```
int main()
```

```
{
```

```
    int a = 9;
```

```
    int b = 4;
```

```
    printf("a > b: %d \n", a > b);
```

```
    printf("a >= b: %d \n", a >= b);
```

```
    printf("a <= b: %d \n", a <= b);
```

```
    printf("a < b: %d \n", a < b);
```

```
    printf("a == b: %d \n", a == b);
```

```
    printf("a != b: %d \n", a != b);
```

```
}
```

OUTPUT -

```
a > b: 1
```

```
a >= b: 1
```

```
a <= b: 0
```

```
a < b: 0
```

```
a == b: 0
```

```
a != b: 1
```

ABHINAV ANAND

22052611

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C LAB ASSIGNMENT

2. Write a C program, input 2 integers and implement increment and decrement operator over them.

Answer -

INPUT -

//Q2) Write a program, input 2 integers and implement increment and decrement operator over them

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

```
void main() {
```

```
int a , b ;
```

```
printf("Enter value of a :");
```

```
scanf("%d",&a);
```

```
printf("Enter value of b :");
```

```
scanf("%d",&b);
```

```
printf("%d\n", a++);
```

```
printf("%d\n", ++b);
```

```
}
```

OUTPUT -

Enter value of a :34

Enter value of b :32

34

33

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C LAB ASSIGNMENT

3. Write a program, find discriminant of a quadratic equation and check the nature of the root.

Answer -

INPUT -

//Write a program, find discriminant of a quadratic equation and check the nature of the root

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

```
void main(){
```

```
    int d,a,b,c;
```

```
    printf("Enter coefficient of x^2: ");
```

```
    scanf("%d",&a);
```

```
    printf("Enter coefficient of x: ");
```

```
    scanf("%d",&b);
```

```
    printf("Enter the value of c: ");
```

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

```
    d=(b*b)-(4*a*c);
```

```
    printf("The discriminant is %d\n", d);
```

```
    d>=0 ? printf("Real roots") : printf("Virtual Roots");
```

```
}
```

OUTPUT -

Enter coefficient of x^2: 4

Enter coefficient of x: 5

Enter the value of c: 4

The discriminant is -39

Virtual Roots

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C LAB ASSIGNMENT

4. Write a C program to find $P(2)+P(3)$. Let $p(x)$ is a polynomial $P(x)=2x^2-5x+1$.

Answer -

INPUT -

```
#include<stdio.h>

//Write a C program to find P(2)+P(3). Let p(x) is a polynomial P(x)=2x^2-5x+1.

int main() {
    int x,y;

    int a = (x * x * 2) - (5 * x) + 1;
    int b = (y * y * 2) - (5 * y) + 1;
    int c = a + b;

    printf("Type the value of x in p(x) - \n");
    scanf("%d", &x );

    printf("Type the value of y in p(y) - \n");
    scanf("%d", &y );

    printf("The value of p(x) + p (y) = %d", c);

    return 0;
}
```

OUTPUT -

Type the value of x in p(x) -

1

Type the value of y in p(y) -

2

The value of p(x) + p (y) = 51188877

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C LAB ASSIGNMENT

5. Write a C program to find the ASCII value of D.

Answer -

INPUT -

```
//Find the ASCII value of D.  
#include <stdio.h>  
  
void main() {  
    char c;  
  
    printf("Enter a character: ");  
  
    scanf("%c", &c);  
  
    printf("ASCII value of %c=%d", c, c);  
}
```

OUTPUT -

Enter a character: 34

ASCII value of 3=51

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C LAB ASSIGNMENT

6. Write a C program to display the digits of a three digit number and also find their sum.

Answer -

INPUT -

```
//Display the digits present in 3 digit number and find the sum of all digit
```

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

```
void main()
```

```
{
```

```
    int num,a,b,c,sum;
```

```
    printf("Enter The Number \n");
```

```
    scanf("%d",&num);
```

```
    a=num%10;
```

```
    b=(num/10)%10;
```

```
    c=(num/100)%10;
```

```
    printf("Digits of the Number %d %d %d \n",c,b,a);
```

```
    sum=a+b+c;
```

```
    printf("Sum of the Digits %d \n",sum);
```

```
}
```

OUTPUT -

23

Digits of the Number 0 2 3

Sum of the Digits 5

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C LAB ASSIGNMENT

7. Write a C program to check the number is positive or negative using ternary/conditional operator.

Answer -

INPUT -

```
//Check the number is positive or negative in ternary operator
#include<stdio.h>

void main()
{
    int a,b;
    printf("Enter The Number \n");
    scanf("%d",&a);

    (a > 0) ? printf("Number Is Positive \n"): printf("Number Is Negative \n");

}
```

OUTPUT -

Enter The Number

34

Number Is Positive

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C LAB ASSIGNMENT

8. Write a C program to check the number is even or odd using ternary/conditional operator.

Answer -

INPUT -

```
//Check the number is even or odd using ternary operator
#include<stdio.h>

void main()
{
    int a,b;
    printf("Enter The Number \n");
    scanf("%d",&a);

    (a % 2 == 0) ? printf("Number Is Even \n"): printf("Number Is Odd \n");

}
```

OUTPUT -

Enter The Number

23

Number Is Odd

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C LAB ASSIGNMENT

9. Write a C program. R1 & R2 in parallel and R3 in series. Input the values and find equivalent Resistance. R1=5, R2 = 5 and R3 = 3 ohm.

Answer -

INPUT -

```
//R1 & R2 IN Parallel where as R3 in series find the resultant resistance
```

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

```
void main()
```

```
{
```

```
    float R1,R2,R3;
```

```
    float R;
```

```
    printf("Enter The Value of R1 which in parallel \n");
```

```
    scanf("%f",&R1);
```

```
    printf("Enter The Value of R2 which in parallel \n");
```

```
    scanf("%f",&R2);
```

```
    printf("Enter The Value of R3 which in series \n");
```

```
    scanf("%f",&R3);
```

```
    R=(1/R1)+(1/R2);
```

```
    R=(1/R)+R3;
```

```
    printf("Resultant Resistance %f",R);
```

```
}
```

OUTPUT -

Enter The Value of R1 which in parallel

5

Enter The Value of R2 which in parallel

5

Enter The Value of R3 which in series

3

Resultant Resistance 5.500000

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