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
```

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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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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 postive 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 terniary 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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