```c
#include<stdio.h>
int main()
{
    int num1,num2,output;
    char operator;
    printf("Enter a binary expression:");
    scanf("%d %c %d",&num1,&operator,&num2);
    switch(operator)
    {
        case '+':
            output=num1+num2;
            break;
        case '-':
            output=num1-num2;
            break;
        case '*':
            output=num1*num2;
            break;
        case '/':
            output=num1/num2;
            break;
        case '%':
            output=num1%num2;
            break;
        default :
            printf("invalid operation");
            break;
    }
    printf("%d",output);
    return 0;
}
```

```
C:\Users\sam\Desktop\arithmetic.exe
Enter a binary expression:2+3
5
--------------------------------
Process exited after 7.252 seconds with return value 0
Press any key to continue . . .
```

```c
#include<stdio.h>
int main()

{
    // a = 5(00000101)
    unsigned short a = 5, b = -8;   // 8 =(00001000) and -8 = (00001000 + 11110110 = 11110111)

    // c = 6(00000110)  //d = 9(00001001)
    signed short c = 6, d = -8;

    // The result is 00001010
    printf("a<<1 = %d\n", a<<1);
    // The result is 00000010
    printf("a>>1 = %d\n", a>>1);
    // The result is 00001100
    printf("c<<1 = %d\n", c<<1);
    // The result is 00000011
    printf("c>>1 = %d\n", c>>1);

    printf("\n\n");

    /*signed short  range = 0 to 65,535  */
    printf("b<<1 = %d\n", b<<1);     // -8>>1 = (11110111 >> 01111011)
    printf("b>>1 = %d\n", b>>1);     // -8<<1 = (11110111 << 111101110)

    /*signed short  range = -32,768 to 32,767*/
    printf("d>>1 = %d\n", d>>1);

    printf("d<<1 = %d\n", d<<1);
    return 0;

}
```

```
C:\Users\sam\Desktop\NOTES\C\test.exe                    —    □    ×
a<<1 = 10
a>>1 = 2
c<<1 = 12
c>>1 = 3


b<<1 = 131056
b>>1 = 32764
d>>1 = -4
d<<1 = -16

---------------------------------
Process exited after 0.02465 seconds with return value 0
Press any key to continue . . .
```

```c
#include <stdio.h>
int main()
{

    int i, j, a, n, number[30];
    printf("Enter the value of N \n");
    scanf("%d", &n);

    printf("Enter the numbers \n");
    for (i = 0; i < n; ++i)
        scanf("%d", &number[i]);

    for (i = 0; i < n; ++i)
    {

        for (j = i + 1; j < n; ++j)
        {

            if (number[i] > number[j])
            {

                a =  number[i];
                number[i] = number[j];
                number[j] = a;

            }

        }

    }
    printf("The second largest number is \n");
        printf("%d\n", number[n-2]);
return 0;
}
```

```
C:\Users\sam\Desktop\t.exe
Enter the value of N
4
Enter the numbers
15
35
62
48
The second largest number is
48

--------------------------------
Process exited after 8.131 seconds with return value 0
Press any key to continue . . .
```

```c
#include<stdio.h>
int main()

{
    int x=10;
    float y=5;
    printf("%f \n",x/y);// Implicit Conversion

    printf("%d",x/y);

    return 0;

}
```

```
2.000000
0
---------------------------------
Process exited after 0.01953 seconds with return value 0
Press any key to continue . . .
```