1. **PROGRAM 1**

#include <stdio.h>

int main()

{

int a = 9,b = 4, c;

c = a+b;

printf("a+b = %d \n",c);

c = a-b;

printf("a-b = %d \n",c);

c = a\*b;

printf("a\*b = %d \n",c);

c = a/b;

printf("a/b = %d \n",c);

c = a%b;

printf("Remainder when a divided by b = %d \n",c);

return 0;

}

**OUTPUT:**

a+b = 13

a-b = 5

a\*b = 36

a/b = 2

Remainder when a divided by b = 1

1. **PROGRAM 2**

#include <stdio.h>

int main()

{

int a = 10, b = 100;

float c = 10.5, d = 100.5;

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

printf("--b = %d \n", --b);

printf("++c = %f \n", ++c);

printf("--d = %f \n", --d);

return 0;

}

**OUTPUT:**

++a = 11

--b = 99

++c = 11.500000

--d = 99.500000

1. **PROGRAM 3**

#include <stdio.h>

int main()

{

int a = 5, c;

c = a; // c is 5

printf("c = %d\n", c);

c += a; // c is 10

printf("c = %d\n", c);

c -= a; // c is 5

printf("c = %d\n", c);

c \*= a; // c is 25

printf("c = %d\n", c);

c /= a; // c is 5

printf("c = %d\n", c);

c %= a; // c = 0

printf("c = %d\n", c);

return 0;

}

**OUTPUT:**

c = 5

c = 10

c = 5

c = 25

c = 5

c = 0

1. **PROGRAM 2**

#include <stdio.h>

int main()

{

int a = 5, b = 5, c = 10;

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

printf("%d == %d is %d \n", a, c, a == c);

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

printf("%d > %d is %d \n", a, c, a > c);

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

printf("%d < %d is %d \n", a, c, a < c);

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

printf("%d != %d is %d \n", a, c, a != c);

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

printf("%d >= %d is %d \n", a, c, a >= c);

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

printf("%d <= %d is %d \n", a, c, a <= c);

return 0;

}

**OUTPUT:**

5 == 5 is 1

5 == 10 is 0

5 > 5 is 0

5 > 10 is 0

5 < 5 is 0

5 < 10 is 1

5 != 5 is 0

5 != 10 is 1

5 >= 5 is 1

5 >= 10 is 0

5 <= 5 is 1

5 <= 10 is 1

1. **PROGRAM 5**

#include <stdio.h>

int main()

{

// Displays the string inside quotations

printf("C Programming");

return 0;

}

**OUTPUT:**

C Programming

1. **PROGRAM 6**

#include <stdio.h>

int main()

{

int testInteger = 5;

printf("Number = %d", testInteger);

return 0;

}

**OUTPUT:**

Number = 5

**7. PROGRAM 7**

#include <stdio.h>

int main()

{

float number1 = 13.5;

double number2 = 12.4;

printf("number1 = %f\n", number1);

printf("number2 = %lf", number2);

return 0;

}

**OUTPUT:**

number1 = 13.500000

number2 = 12.400000

**8. PROGRAM 8**

#include <stdio.h>

int main()

{

char chr = 'a';

printf("character = %c", chr);

return 0;

}

**OUTPUT:**

character = a

**9. PROGRAM 9**

#include <stdio.h>

int main()

{

int testInteger;

printf("Enter an integer: ");

scanf("%d", &testInteger);

printf("Number = %d",testInteger);

return 0;

}

**OUTPUT:**

Enter an integer: 5

Number = 5

**10. PROGRAM 10**

#include <stdio.h>

int main()

{

float num1;

double num2;

printf("Enter a number: ");

scanf("%f", &num1);

printf("Enter another number: ");

scanf("%lf", &num2);

printf("num1 = %f\n", num1);

printf("num2 = %lf", num2);

return 0;

}

**OUTPUT:**

Enter a number: 3

Enter another number: 65

num1 = 3.000000

num2 = 65.000000

**11. PROGRAM 11**

#include <stdio.h>

int main()

{

char chr;

printf("Enter a character: ");

scanf("%c",&chr);

printf("You entered %c.", chr);

return 0;

}

**OUTPUT:**

Enter a character: d

You entered d.

**12. PROGRAM 12**

#include <stdio.h>

main() {

int a = 5;

int b = 20;

int c ;

if ( a && b ) {

printf("Line 1 - Condition is true\n" );

}

if ( a || b ) {

printf("Line 2 - Condition is true\n" );

}

/\* lets change the value of a and b \*/

a = 0;

b = 10;

if ( a && b ) {

printf("Line 3 - Condition is true\n" );

} else {

printf("Line 3 - Condition is not true\n" );

}

if ( !(a && b) ) {

printf("Line 4 - Condition is true\n" );

}

}

**OUTPUT:**

Line 1 - Condition is true

Line 2 - Condition is true

Line 3 - Condition is not true

Line 4 - Condition is true

**13. PROGRAM 13**

#include <stdio.h>

int main()

{

// a = 5(00000101), b = 9(00001001)

unsigned char a = 5, b = 9;

// The result is 00000001

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

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

// The result is 00001101

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

// The result is 00001100

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

// The result is 11111010

printf("~a = %d\n", a = ~a);

// The result is 00010010

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

// The result is 00000100

printf("b>>1 = %d\n", b >> 1);

return 0;

}

**OUTPUT:**

a = 5, b = 9

a&b = 1

a|b = 13

a^b = 12

~a = 250

b<<1 = 18

b>>1 = 4

**14. PROGRAM 14**

int main()

{

    int x = 2, y = 5;

    (x & y) ? printf("True \n") : printf("False \n

    (x && y) ? printf("True \n") : printf("False \n");

    return 0;

}

**OUTPUT:**

False

True

**15. PROGRAM 15**

#include <stdio.h>

int main()

{

    int x = 19;

    printf("x << 1 = %d\n", x << 1);

    printf("x >> 1 = %d\n", x >> 1);

    return 0;

}

**OUTPUT:**

x << 1 = 38

x >> 1 = 9

**16. PROGRAM 16**

// Note that the output of the following

// program is compiler dependent

#include <stdio.h>

int main()

{

    unsigned int x = 1;

    printf("Signed Result %d \n", ~x);

    printf("Unsigned Result %u \n", ~x);

    return 0;

}

**OUTPUT:**

Signed Result -2

Unsigned Result 4294967294

**17. PROGRAM 17**

#include <stdio.h>

int main()

{

int a, b, c;

printf(“\nEnter the three numbers”);

scanf(“%d %d %d”, &a, &b, &c);

if(a > b)

if(a > c)

printf(“%d”, a);

else

printf(“%d”, c);

else

if(b > c)

printf(“%d”, b);

else

printf(“%d”, c);

return 0;

}

**OUTPUT:**

**18. PROGRAM 18**

#include <stdio.h>

int main()

{

int a,b,c;

printf(“\n ENTER THE TWO NUMBERS:”);

scanf(“%d %d”, &a, &b);

c=a>b? a : b>a ? b :-1;

if(c==-1)

printf(“\n BOTH NUMBERS ARE EQUAL”);

else

printf(“\n LARGER NUMBER IS %d”,c);

return 0;

}

**OUTPUT:**

**19. PROGRAM 19**

#include <stdio.h>

int main()

{

int x;

printf(“\n ENTER THE NUMBER:”);

scanf(“%d”, &x);

if(x > 0)

printf(“x is positive \n”);

else if(x == 0)

printf(“x is zero \n”);

else

printf(“x is negative \n”);

return 0;

}

**OUTPUT:**

ENTER THE NUMBER: 34

x is positive

**20. PROGRAM 20**

#include<stdio.h>

int main()

{

int c; c=5;

// Initialization

while(c>0)

{

// Test Expression

printf(“ \n %d”,c);

c=c-1;

// Updating

}

return 0;

}

**OUTPUT:**

5

4

3

2

1

**21. PROGRAM 21**

#include<stdio.h>

**int** main()

{

**int** number=0;

printf("Enter a number:");

scanf("%d",&number);

**if**(number%2==0)

{

printf("%d is even number",number);

}

**return** 0;

}

**OUTPUT:**

**22. PROGRAM 22**

#include <stdio.h>

**int** main()

{

**int** a, b, c;

     printf("Enter three numbers?");

    scanf("%d %d %d",&a,&b,&c);

**if**(a>b && a>c)

    {

        printf("%d is largest",a);

    }

**if**(b>a  && b > c)

    {

        printf("%d is largest",b);

    }

**if**(c>a && c>b)

    {

        printf("%d is largest",c);

    }

**if**(a == b && a == c)

    {

        printf("All are equal");

    }

}

**OUTPUT:**

**23. PROGRAM 23**

#include<stdio.h>

**int** main()

{

**int** number=0;

printf("enter a number:");

scanf("%d",&number);

**if**(number%2==0)

{

printf("%d is even number",number);

}

**else**

{

printf("%d is odd number",number);

}

**return** 0;

}

**OUTPUT:**

**24. PROGRAM 24**

#include <stdio.h>

**int** main()

{

**int** age;

    printf("Enter your age?");

    scanf("%d",&age);

**if**(age>=18)

    {

        printf("You are eligible to vote...");

    }

**else**

    {

        printf("Sorry ... you can't vote");

    }

}

**OUTPUT:**

**25. PROGRAM 25**

#include<stdio.h>

**int** main(){

**int** number=0;

printf("enter a number:");

scanf("%d",&number);

**if**(number==10){

printf("number is equals to 10");

}

**else** **if**(number==50){

printf("number is equal to 50");

}

**else** **if**(number==100){

printf("number is equal to 100");

}

**else**{

printf("number is not equal to 10, 50 or 100");

}

**return** 0;

}

**OUTPUT:**

**26. PROGRAM 26**

#include<stdio.h>

**int** main(){

**int** number=0;

printf("enter a number:");

scanf("%d",&number);

**switch**(number){

**case** 10:

printf("number is equals to 10");

**break**;

**case** 50:

printf("number is equal to 50");

**break**;

**case** 100:

printf("number is equal to 100");

**break**;

**default**:

printf("number is not equal to 10, 50 or 100");

}

**return** 0;

}

**OUTPUT:**

**27. PROGRAM 27**

#include <stdio.h>

**int** main()

{

**int** x = 10, y = 5;

**switch**(x>y && x+y>0)

    {

**case** 1:

        printf("hi");

**break**;

**case** 0:

        printf("bye");

**break**;

**default**:

        printf(" Hello bye ");

    }

}

**OUTPUT:**

**28. PROGRAM 28**

#include <stdio.h>

**int** main () {

**int** i = 10;

**int** j = 20;

**switch**(i) {

**case** 10:

         printf("the value of i evaluated in outer switch: %d\n",i);

**case** 20:

**switch**(j) {

**case** 20:

               printf("The value of j evaluated in nested switch: %d\n",j);

         }

   }

   printf("Exact value of i is : %d\n", i );

   printf("Exact value of j is : %d\n", j );

**return** 0;

}

**OUTPUT:**

**29. PROGRAM 29**

#include<stdio.h>

**int** main(){

**int** i=1;

**do**{

printf("%d \n",i);

i++;

}**while**(i<=10);

**return** 0;

}

**OUTPUT:**

**30. PROGRAM 30**

#include<stdio.h>

**void** main ()

{

**while**()

    {

        printf("hello Javatpoint");

    }

}

**OUTPUT:**

**31. PROGRAM 31**

#include<stdio.h>

**int** main(){

**int** i=1,number=0,b=9;

printf("Enter a number: ");

scanf("%d",&number);

**while**(i<=10){

printf("%d \n",(number\*i));

i++;

}

**return** 0;

}

**OUTPUT:**

**32. PROGRAM 32**

#include<stdio.h>

**int** main(){

**int** i=0;

**for**(i=1;i<=10;i++){

printf("%d \n",i);

}

**return** 0;

}

**OUTPUT:**

**33. PROGRAM 33**

#include<stdio.h>

**int** main(){

**int** i=1,number=0;

printf("Enter a number: ");

scanf("%d",&number);

**for**(i=1;i<=10;i++){

printf("%d \n",(number\*i));

}

**return** 0;

}

**OUTPUT:**

**34. PROGRAM 34**

#include <stdio.h>

**int** main()

{

**int** a,b,c;

**for**(a=0,b=12,c=23;a<2;a++)

    {

        printf("%d ",a+b+c);

    }

}

**OUTPUT:**

**35. PROGRAM 35**

#include<stdio.h>

#include<stdlib.h>

**void** main ()

{

**int** i;

**for**(i = 0; i<10; i++)

    {

        printf("%d ",i);

**if**(i == 5)

**break**;

    }

    printf("came outside of loop i = %d",i);

}

**OUTPUT:**

**36. PROGRAM 36**

#include<stdio.h>

**int** main(){

**int** i=1,j=1;//initializing a local variable

**for**(i=1;i<=3;i++){

**for**(j=1;j<=3;j++){

printf("%d &d\n",i,j);

**if**(i==2 && j==2){

**break**;//will break loop of j only

}

}//end of for loop

**return** 0;

}

**OUTPUT:**

**37. PROGRAM 37**

#include<stdio.h>

**void** main ()

{

**int** i = 0;

**while**(1)

    {

        printf("%d  ",i);

        i++;

**if**(i == 10)

**break**;

    }

    printf("came out of while loop");

}

**OUTPUT:**