

C Operators

1. What is the output of this C code?

```
int main()
{
    int i = -5;
    int k = i %4;
    printf("%d\n", k);
}
```

- **A.** Compile time error
- **B.** -1
- **C.** 1
- **D.** None

2. What is the output of this C code?

```
int main()
{
    int i = 5;
    int l = i / -4;
    int k = i % -4;
    printf("%d %d\n", l, k);
    return 0;
}
```

- **A.** Compile time error
- **B.** -1 1
- **C.** 1 -1
- **D.** Run time error

3. What is the output of this C code?

```
int main()
{
    int i = 7;
    i = i / 4;
    printf("%d\n", i);
    return 0;
}
```

- **A.** Run time error
- **B.** 1
- **C.** 3
- **D.** Compile time error

4. What is the value of x in this C code?

```
int main()
{
    int x = 4 * 5 / 2 + 9;
    printf("%d",x);
return 0;
}
```

- **A.** 6.75
- **B.** 1.85
- **C.** 19
- **D.** 3

5. What is the output of this C code?

```
int main()
{
    int x = 4.3 % 2;
    printf("Value of x is %d", x);
}
```

- **A.** Value of x is 1.3
- **B.** Value of x is 2
- **C.** Value of x is 0.3
- **D.** Compile time error

6.

What is the output of this C code?

```
int main()
{
    int y = 3;
    int x = 7 % 4 * 3 / 2;
    printf("Value of x is %d", x);
}
```

- **A.** Value of x is 1
- **B.** Value of x is 4
- **C.** Value of x is 3
- **D.** Compile time error

7.

What is the output of this C code?

```
int main()
{
    int a = 5;
    int b = ++a + a++ + --a;
    printf("Value of b is %d", b);
}
```

- **A.** Value of x is 16
- **B.** Value of x is 21
- **C.** Value of x is 15
- **D.** Undefined behaviour

8. The precedence of arithmetic operators is (from highest to lowest)?

- **A.** %, *, /, +, -
- **B.** %, +, /, *, -
- **C.** +, -, %, *, /
- **D.** %, +, -, *, /

9. Which of the following is not an arithmetic operation?

- **A.** a *= 20;
- **B.** a /= 30;
- **C.** a %= 40;
- **D.** a != 50;

10. Which of the following data type will throw an error on modulus operation(%)?

- **A.** char
- **B.** short
- **C.** float
- **D.** int

11. What is the output of this C code?

```
int main()
{
    int a = 20;
    double b = 15.6;
    int c;
    c = a + b;
    printf("%d", c);
}
```

- **A. 35**
- **B. 36**
- **C. 35.6**
- **D. 30**

12. What is the output of this C code?

```
int main()
{
    int a = 20, b = 15, c = 5;
    int d;
    d = a == (b + c);
    printf("%d", d);
}
```

- **A. 1**
- **B. 40**
- **C. 10**
- **D. 5**

14. What is the output of this C code?

```
int main()
{
    int k = 8;
    int x = 0 == 1 && k++;
    printf("%d%d\n", x, k);
}
```

- **A. 0 9**
- **B. 0 8**
- **C. 1 9**
- **D. 1 8**

15. What is the output of this C code?

```
int main()
{
    char a = 'a';
    int x = (a % 10)++;
    printf("%d\n", x);
}
```

- **A. 6**
- **B. Junk value**
- **C. Compile time error**
- **D. 7**

16. What is the output of this C code?

```
void main()

{
    1 < 2 ? return 1: return 2;
}
```

- **A.** returns 1
- **B.** returns 2
- **C.** varies
- **D.** Compile time error

17. What is the output of this C code?

```
int main()
{
    unsigned int x = -5;
    printf("%d", x);
}
```

- **A.** Run time error
- **B.** Varies
- **C.** -5
- **D.** 5

18. What is the output of this C code?

```
int main()
{
    int x = 2, y = 1;
    x *= x + y;
    printf("%d\n", x);
    return 0;
}
```

- **A.** 5
- **B.** 6
- **C.** Undefined behaviour
- **D.** Compile time error

19. What is the output of this C code?

```
int main()
{
    int x = 2, y = 2;
    x /= x / y;
    printf("%d\n", x);
}
```

```
    return 0;
}
```

- **A. 2**
- **B. 1**
- **C. 0.5**
- **D. Undefined behaviour**

20. What is the output of this C code?

```
int main()
{
    int x = 1, y = 0;
    x &&= y;
    printf("%d\n", x);
}
```

- **A. Compile time error**
- **B. 1**
- **C. 0**
- **D. Undefined behaviour**

21. What is the type of the below assignment expression if x is of type float, y is of type int?

```
y = x + y;
```

- **A. int**
- **B. float**
- **C. There is no type for an assignment expression**
- **D. double**

23. Operation "a = a * b + a" can also be written as:

- **A. a *= b + 1;**
- **B. (c = a * b) != (a = c + a);**
- **C. a = (b + 1) * a;**
- **D. All of the mentioned**

24. for c = 2, value of c after c <=<= 1;

- **A. c = 1;**
- **B. c = 2;**
- **C. c = 3;**
- **D. c = 4;**

25. What is the output of this C code?

```
int main()
{
    int a = 1, b = 2;
    a += b -= a;
    printf("%d %d", a, b);
}
```

- **A.** 1 1
- **B.** 1 2
- **C.** 2 1
- **D.** 2 2

26.

What is the output of this C code?

```
int main()
{
    int a = 4, n, i, result = 0;
    scanf("%d", n);
    for (i = 0; i < n; i++)
        result += a;
}
```

- **A.** Addition of a and n.
- **B.** Subtraction of a and n.
- **C.** Multiplication of a and n.
- **D.** Division of a and n.

27. Which of the following is an invalid assignment operator?

- **A.** `a %= 10;`
- **B.** `a /= 10;`
- **C.** `a |= 10;`
- **D.** None of the mentioned

28. What is the output of this C code?

```
int main()
{
    int c = 2 ^ 3;
    printf("%d\n", c);
}
```

- **A.** 1
- **B.** 8

- **C. 9**
- **D. 0**

29. What is the output of this C code?

```
int main()
{
    unsigned int a = 10;
    a = ~a;
    printf("%d\n", a);
}
```

- **A. -9**
- **B. -10**
- **C. -11**
- **D. 10**

31. What is the output of this C code?

```
int main()
{
    int a = 2;

    printf("%d\n", a>>1);
}
```

- **A. 0**
- **B. 1**
- **C. 2**
- **D. No output**

33. What is the output of this C code?

```
int main()
{
    int x = 97;
    int y = sizeof(x++);
    printf("x is %d", x);
}
```

- **A. x is 97**
- **B. x is 98**
- **C. x is 99**
- **D. Run time error**

34.

What is the output of this C code?

```
int main()
{
    int x = 4, y, z;
    y = --x;
    z = x--;
    printf("%d%d%d", x, y, z);
}
```

- **A.** 3 2 3
- **B.** 2 2 3
- **C.** 3 2 2
- **D.** 2 3 3

36. What is the output of this C code?

```
int main()
{
    int a = 5, b = -7, c = 0, d;
    d = ++a && ++b || ++c;
    printf("\n%d%d%d%d", a, b, c, d);
}
```

- **A.** 6 -6 0 0
- **B.** 6 -5 0 1
- **C.** -6 -6 0 1
- **D.** 6 -6 0 1

37. What is the output of this C code?

```
int main()
{
    int a = -5;
    int k = (a++, ++a);
    printf("%d\n", k);
}
```

- **A.** -3
- **B.** -5
- **C.** 4
- **D.** Undefined

38. What is the output of this C code?

```
int main()
{
    int x = 2;
    x = x << 1;
    printf("%d\n", x);
}
```

- **A. 4**
- **B. 1**
- **C. Depends on the compiler**
- **D. Depends on the endianness of the machine**

39. What is the output of this C code?

```
int main()
{
    int x = -2;
    x = x >> 1;
    printf("%d\n", x);
}
```

- **A. 1**
- **B. -1**
- **C. $2^{31} - 1$ considering int to be 4 bytes**
- **D. Either (b) or (c)**

44. What is the difference between the following 2 codes?

```
//Program 1
int main()
{
    int d, a = 1, b = 2;
    d = a++ + ++b;
    printf("%d %d %d", d, a, b);
}
```

```
//Program 2
int main()
{
    int d, a = 1, b = 2;
    d = a++ + ++b;
    printf("%d %d %d", d, a, b);
}
```

- **A. No difference as space doesn't make any difference, values of a, b, d are same in both the case**
- **B. No difference as space doesn't make any difference, values of a, b, d are different**
- **C. Program 1 has syntax error, program 2 is not**
- **D. Program 2 has syntax error, program 1 is not**

45. What is the output of this C code?

```
int main()
{
    int a = 1, b = 1, c;
    c = a++ + b;
    printf("%d, %d", a, b);
}
```

- **A.** a = 1, b = 1
- **B.** a = 2, b = 1
- **C.** a = 1, b = 2
- **D.** a = 2, b = 2

46. What is the output of this C code?

```
int main()
{
    int a = 1, b = 1, d = 1;
    printf("%d, %d, %d", ++a + ++a + a++, a++ + ++b, ++d + d++ + a++);
}
```

- **A.** 15, 4, 5
- **B.** 9, 6, 9
- **C.** 9, 3, 5
- **D.** 6, 4, 6

48.

What is the output of this C code?

```
int main()
{
    int a = 10, b = 10;
    if (a = 5)
        b--;
    printf("%d, %d", a, b--);
}
```

- **A.** a = 10, b = 9
- **B.** a = 10, b = 8
- **C.** a = 5, b = 9
- **D.** a = 5, b = 8

49. What is the output of this C code?

```
int main()
{
    int i = 0;
```

```

    int j = i++ + i;
    printf("%d\n", j);
}

```

- **A.** 0
- **B.** 1
- **C.** 2
- **D.** Compile time error

50. What is the output of this C code?

```

int main()
{
    int i = 2;
    int j = ++i + i;
    printf("%d\n", j);
}

```

- **A.** 6
- **B.** 5
- **C.** 4
- **D.** Compile time error

51. Comment on the output of this C code?

```

int main()
{
    int i = 2;
    int i = i++ + i;
    printf("%d\n", i);
}

```

- **A.** = operator is not a sequence point
- **B.** ++ operator may return value with or without side effects
- **C.** it can be evaluated as (i++)+i or i+(++i)
- **D.** Both a and b

52.

What is the output of this C code?

```

int main()
{
    int i = 0;
    int x = i++, y = ++i;
    printf("%d %d\n", x, y);
    return 0;
}

```

- **A.** 0, 2
- **B.** 0, 1
- **C.** 1, 2
- **D.** Undefined

51. Comment on the output of this C code?

```
int main()
{
    int i = 2;
    int i = i++ + i;
    printf("%d\n", i);
}
```

- **A.** = operator is not a sequence point
- **B.** ++ operator may return value with or without side effects
- **C.** it can be evaluated as (i++)+i or i+(++i)
- **D.** Both a and b

54. What is the output of this C code?

```
void main()
{
    int x = 97;
    int y = sizeof(x++);
    printf("X is %d", x);
}
```

- **A.** X is 97
- **B.** X is 98
- **C.** X is 99
- **D.** Run time error

55. What is the output of this C code?

```
void main()
{
    int x = 4, y, z;
    y = --x;
    z = x--;
    printf("%d%d%d", x, y, z);
}
```

- **A.** 3 2 3
- **B.** 2 3 3
- **C.** 3 2 2
- **D.** 2 3 4

51. Comment on the output of this C code?

```
int main()
{
    int i = 2;
    int i = i++ + i;
    printf("%d\n", i);
}
```

- **A.** = operator is not a sequence point
- **B.** ++ operator may return value with or without side effects
- **C.** it can be evaluated as (i++)+i or i+(++i)
- **D.** Both a and b

57. What is the output of this C code?

```
void main()
{
    int a = 5, b = -7, c = 0, d;
    d = ++a && ++b || ++c;
    printf("\n%d%d%d%d", a, b, c, d);
}
```

- **A.** 6 -6 0 0
- **B.** 6 -5 0 1
- **C.** -6 -6 0 1
- **D.** 6 -6 0 1

58. What is the output of this C code?

```
void main()
{
    int a = -5;
    int k = (a++, ++a);
    printf("%d\n", k);
}
```

- **A.** -4
- **B.** -5
- **C.** 4
- **D.** -3

59. What is the output of this C code?

```
void main()
{
    int x = 1, y = 0, z = 5;
    int a = x && y || z++;
    printf("%d", z);
}
```

- **A. 6**
- **B. 5**
- **C. 0**
- **D. Varies**

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60. What is the output of this C code?

```
void main()
{
    int x = 1, y = 0, z = 5;
    int a = x && y && z++;
    printf("%d", z);
}
```

- **A. 6**
- **B. 5**
- **C. 0**
- **D. Varies**

61. What is the output of this C code?

```
int main()
{
    int x = 1, y = 0, z = 3;
    x > y ? printf("%d", z) : return z;
}
```

- **A. 3**
- **B. 1**
- **C. Compile time error**
- **D. Run time error**

62. What is the output of this C code?

```
void main()
{
    int x = 1, z = 3;
    int y = x << 3;
    printf(" %d\n", y);
}
```

- **A. -2147483648**

- **B. -1**
- **C. Run time error**
- **D. 8**

63. What is the output of this C code?

```
void main()
{
    int x = 0, y = 2, z = 3;
    int a = x & y | z;
    printf("%d", a);
}
```

- **A. 3**
- **B. 0**
- **C. 2**
- **D. Run time error**

66. Are logical operators sequence points?

- **A. True**
- **B. False**
- **C. Depends on the compiler**
- **D. Depends on the standard**

67. Does logical operators in C language are evaluated with short circuit?

- **A. True**
- **B. False**
- **C. Depends on the compiler**
- **D. depends on the standard**

68. Result of a logical or relational expression in C is?

- **A. True or False**
- **B. 0 or 1**
- **C. 0 if expression is false and any positive number if expression is true**
- **D. None of the mentioned**

69. What will be the value of d in the following program?

```
int main()
{
    int a = 10, b = 5, c = 5;
    int d;
```



```

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

```

- **A.** Syntax error
- **B.** 1
- **C.** 5
- **D.** 10

70. What is the output of this C code?

```

int main()
{
    int a = 10, b = 5, c = 3;
    b != !a;
    c = !!a;
    printf("%d\t%d", b, c);
}

```

- **A.** 5 1
- **B.** 0 3
- **C.** 5 3
- **D.** 1 1

71. Which among the following is NOT a logical or relational operator?

- **A.** !=
- **B.** ==
- **C.** ||
- **D.** =

73. Relational operators cannot be used on:

- **A.** structure
- **B.** long
- **C.** strings
- **D.** float

74 int main()

```

{
    int _ = 10;
    int __ = 20;
    int ____ = _ + __;
    printf("____%d", ____);
}

```

```
        return 0;
    }
    (A) CompilationError
    (B) RuntimeError
    (C) __0
    (D) __30
```

75 int main()

```
{
    int a = 5;
    int b = 10;
    int c = a+b;
    printf("%i",c);
}
```

(A) 0
(B) 15
(C) Undefined i
(D) Any other Compiler Error

76 int main()

```
{
    int x;
    x=10,20,30;
    printf("%d",x);
    return 0;
}
```

A) 10
(B) 20
(C) 30
(D) Compilation Error

77 int main()

```
{
    int a = printf ("Siddhartha");
    printf("%d", a);
}
```

- (A) CompilationError
- (B) 0
- (C) CppBuzz.com
- (D) CppBuzz.com11

78 #include<stdio.h>

```
int main()
{
int a@ = 10;
printf("%d", a@);
return 0;
}
```

- (A) 10
- (B) 10@
- (C) @
- (D) [Error] stray '@' in program

79 #include<stdio.h>

```
int main()
{
int a = 10;
printf("%d", a);
int a = 20;
printf("%d",a);
return 0;
}
```

- (A) 1020
- (B) 1010
- (C) 2020
- (D) Error: Redeklartion of a

80 #include<stdio.h>

```
int main()
{
int __a = 10;
printf("%d",__a);
return 0;
```

}

(A) Compilation Error

(B) 10

(C) __10

(D) __a

81 #include<stdio.h>

int main()

{

int 2a = 10;

printf("%d",2a);

return 0;

}

(A) 10

(B) 20

(C) 2a

(D) Compilation Error

82 #include<stdio.h>

int main()

{

int @a = 10;

printf("%d",@a);

return 0;

}

(A) 10

(B) @10

(C) 10@

(D) Compilation Error