

Operators Associativity and Precedence Assignment

1. Use operator associativity, evaluate the following expressions and predict the output

- a. $x = 34 + 12/4 - 56$
- b. $12 + 3 - 4 / 2 < 3 + 1$
- c. $(2 + (3 + 2)) * 10$
- d. $34 + 12/4 - 45$

- A. a. -19
b. FALSE
c. 70
d. -8

2. Rewrite the following expressions with improved readability

- a. `age < 18 && height < 48 || age > 60 && height > 72`
- b. `char name value`
- c. `char $name`

- A. a. `(age < 18 && height < 48) || (age > 60 && height > 72)`

b. `char name =`

3. Predict the value of a after each statement.

```
int main(void)
{
    int i = 10;

    char a = 'd';
    a += 10;
    a *= 5;
    a /= 4;
    a %= 2;

    a *= a + i;

    return 0;
}
```

- A. `l=10.`

`a= d, a=100`

`a=n a=110`

`a= nil a=550`

`a= nil a=137`

`a=nil a=1`

`a = nil a=11`

4. Consider `a = 12, b = 3`, predict the output of the following .

- a. `(a>100) && (b<10)`
- b. `(a==4) && (b==2)`
- c. `(a==11) && (a++)`

- A. a. FALSE
 - b. FALSE
 - c. FALSE
- 5. Consider $a = 10$, $b = 11$, predict the output of the following .
 - a. $(a > 10) \parallel (b < 10)$
 - b. $a \parallel 12.12$
 - c. $a \parallel b$
 - d. $!(a > 5)$
- A. A. True
 - b. False
 - c. False
 - d. False
- 6. Consider $\text{int age} = 10$, $\text{height} = 45$, $\text{year} = 2000$; Predict the output of the following.
 - a. $(\text{age} < 12 \ \&\& \ \text{height} < 48) \parallel (\text{age} > 65 \ \&\& \ \text{height} > 72)$
 - b. $(\text{year} \% 4 == 0 \ \&\& \ \text{year} \% 100 != 0) \parallel (\text{year} \% 400 == 0);$
- A. a. True
 - b. True