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Operators in C (S2)

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What is the output of the following C program fragment?

```
//Problem 2.
#include <stdio.h>
int main(){
    int a = 1;
    int b = 1;
    int c = ++a || b++;
    int d = b-- && --a;
    printf("%d %d %d %d",d,c,b,a);
}
```

```
Options:
(a) 1 1 1 1
(b) 0 1 0 0
(c) 1 0 0 1
(d) 1 1 0 1
```

c = ++a || b++;

```
    a
    ++a
    b
    b++

    1
    2
    1
    1

    T || T = T
    2 || 1 = 1
    1
    1

    c = 1
    a
    --a
    b
    b--

    2
    1
    1
    1

    T || T = T
    1 || 1 = 1
    1

    d = 1
```

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Because of short circuit, the second operand **b++ or b--2** will never get implemented.

Short-Circuit: Programming concept in which the compiler skips the execution or evaluation of some sub-expressions in a logical expression. Short-Circuit occurs as soon as the value of expression is determined.

Therefore, the correct answer to the problem is:

(a) 1 1 1 1

This outline is based on C programming lectures by Neso Academy, visit the following video to learn more.

Operators in C - Neso Academy

To learn more about short-circuiting in C, visit the following website.

Short-Circuit in Programming - GeeksforGeeks