

unsigned char

// all 8 bits are used to store value

sizeof(char) = 1 byte (8 bits)

Min value = 0000 0000 - 0

Max value = 1111 1111 - 255

Range of char = 0 to 255

signed char

// 1 bit(MSB) is used to store sign(+/-), remaining 7 bits are used to store value

Min value = -128

Max value = 127

Expression : $3 + 4 * 2 - (5 - 4 / 2) + 5$

$$\begin{array}{l} \textcircled{2} \quad \textcircled{1} \\ 3 + \underline{4 * 2} \Rightarrow 3 + (4 * 2) \\ \quad \quad \quad \quad \quad \quad \quad \quad 8 + 8 \\ \quad \quad \quad \quad \quad \quad \quad \quad = 11 \end{array}$$

$$\begin{array}{l} \textcircled{5} \quad \textcircled{4} \quad \textcircled{6} \quad \textcircled{3} \quad \textcircled{2} \quad \textcircled{7} \\ 3 + 4 * 2 - \underline{(5 - 4 / 2)} + 5 \\ \quad \quad \quad \quad \quad \quad \quad \quad \textcircled{1} \end{array}$$

$$3 + \underline{4 * 2} - (5 - \underline{4 / 2}) + 5$$

$$3 + 8$$

$$11 - (5 - 2)$$

$$11 - 3$$

$$8 + 5$$

$$= \textcircled{13}$$

```
int a = -10, b = 3, c = 0, d;
d = a++ || ++b && c++;
printf("%d, %d, %d, %d, ", a, b, c, d);
```



$d = a++ \parallel (\underline{++b} \ \&\& \ c++)$

$-10 \parallel \text{X}$

$= 1$

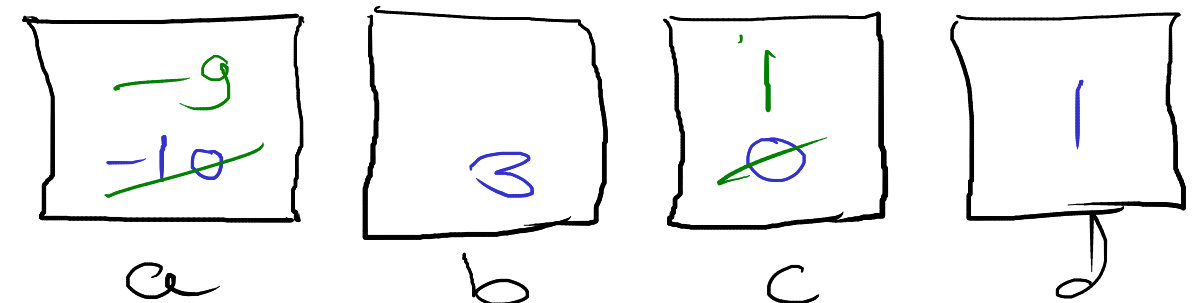
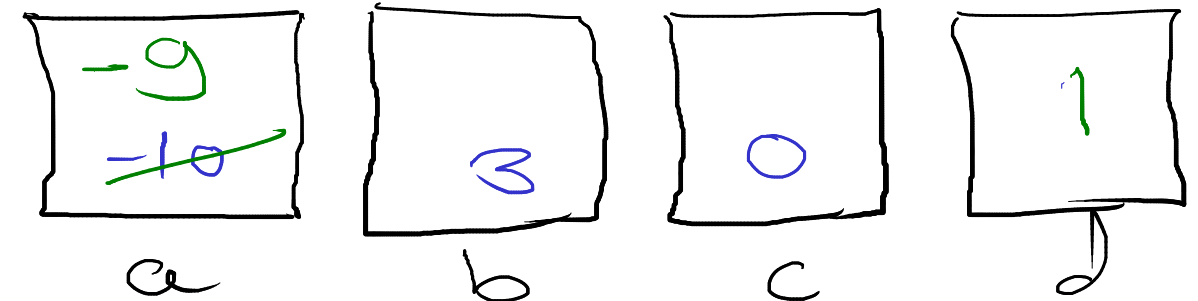
```
a = -10, b = 3, c = 0;
d = c++ && ++b || a++;
printf("%d, %d, %d, %d", a, b, c, d);
```

$d = (c++ \ \&\& \ ++b) \parallel a++$

$(0 \ \&\& \ \text{X})$

$0 \parallel -10$

$= 1$



Control Flow structures

1. Decision control

2. Selection control

3. Loop control

4. Jump

-- if else

-- switch case

-- while, for, do while

-- goto, break, continue, return

```
if(condition)
{
    // block of statements
}
```

if condition is true
then block of statements will be executed

```
if(condition)
{
    // block 1
}
else
{
    // block 2
}
```

if condition is true
then block 1 will be executed
if condition is false
then block 2 will be executed