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

② ①

$3 + 4 * 2 \implies$ $3 + (4 * 2)$

$8 + 8$

$= 11$

⑤ ④ ⑥ ③ ② ⑦

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

①

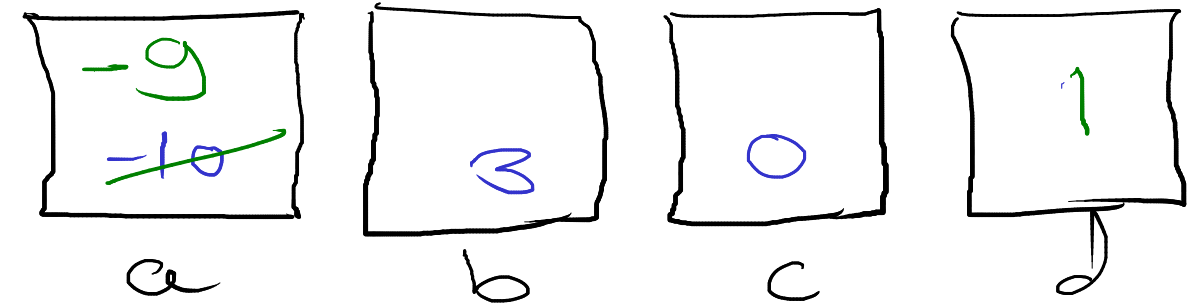$3 + \underline{4 * 2} - (5 - \underline{4 / 2}) + 5$

$3 + 8$

$11 - (5 - 2)$

$11 - 3$

$8 + 5$

$= \boxed{13}$

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

-9 -10	3	0	1
a	b	c	d

$$d = a++ \; || \; (++b \; \&\& \; c++)$$

$$-10 \; || \; \times$$

$$= 1$$

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

-9 -10	3	1 0	1
a	b	c	d

$$d = (c++ \; \&\& \; ++b) \; || \; a++$$

$$(0 \; \&\& \; \times)$$

$$0 \; || \; -10$$

$$= 1$$
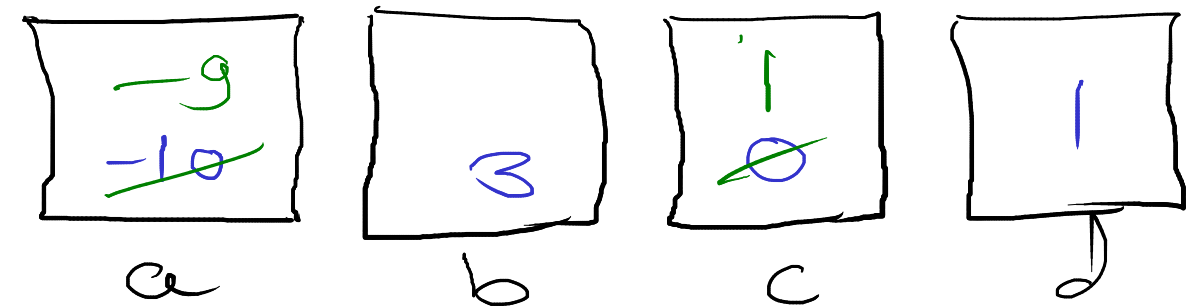
Control Flow structures

1. Decision control   -- if else
2. Selection control   -- switch case
3. Loop control   -- while, for, do while
4. Jump   -- 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 flase
then block 2 will be executed