

## Logical Operators (Used for checking multiple cond)

✓ ① && → logical AND

✓ ② || → logical OR

③ ! → logical NOT

&&

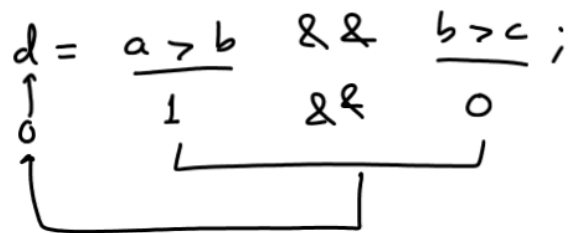
<u>Cond1</u>	&&	<u>Cond1</u>	<u>Result</u>
T		T	T
T		F	F
F		F	F
F		T	F

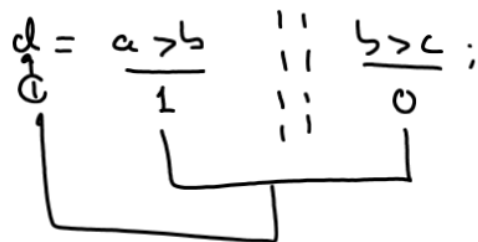
||  
||

<u>Cond 1</u>	<u>  </u>	<u>Cond 2</u>	<u>Res</u>
T		T	T
T		F	T
F		T	T
F		F	F

① int a=10, b=5, c=15, d;

ij)

d =  $\frac{a > b}{1} \&\& \frac{b > c}{0};$   


d =  $\frac{a > b}{1} \&\& \frac{b > c}{0};$   


int a=10, b=10, c=10, d;

Not  
sense way!

d = a == b == c ;  
0      1      10

printf ("%d", d);

Correct  
way!

d = a == b && b == c ;  
①      1      1

int a;

Not sense  
way!

a = 10 < 5 < 3 ;  
0      0      3

Correct  
way!

a = 10 < 5 && 5 < 3 ;  
0      0      0

# Precedence and Associativity of Operators

Gv: 0: ( )

Gv: 1 → \*, /, %

Gv: 2 → +, -

$$a + b * c$$

②                  ①

Gv: 3 → >, <, >=, <=

Gv: 4 → ==, !=

$$a / b * c$$

→

Gv: 5 → &&

$$a = b = c ;$$

←

Gv: 6 → ' ' , " "

Gv: 7 → =

$$\textcircled{1} \quad a = b + c * d - e ;$$

④                  ②                  ①                  ③

$$\textcircled{2} \quad a = b / c + d * e ;$$

④                  ①                  ③                  ②

$$\textcircled{3} \quad a = b > c - d/e * f;$$

$\textcircled{5}$ 
 $\textcircled{4}$ 
 $\textcircled{3}$ 
 $\textcircled{1}$ 
 $\textcircled{2}$

$$\textcircled{4} \quad x + y = a + b; X$$

l-value  
reqd

$$\textcircled{5} \quad a = b - c == d + e;$$

$\textcircled{4}$ 
 $\textcircled{1}$ 
 $\textcircled{3}$ 
 $\textcircled{2}$

$$\textcircled{6} \quad a = b / c / d / e;$$

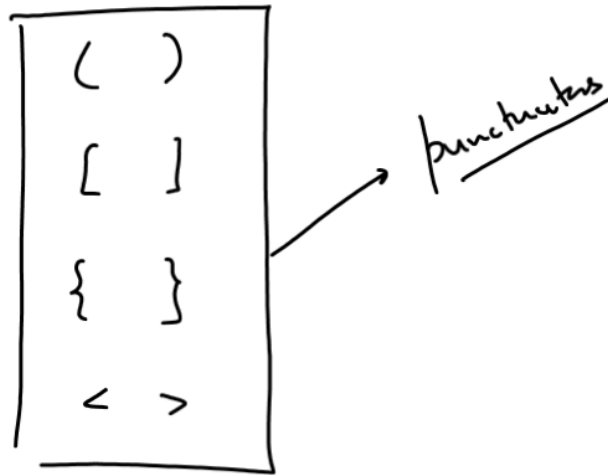
$\textcircled{4}$ 
 $\textcircled{1}$ 
 $\textcircled{2}$ 
 $\textcircled{3}$

$$\textcircled{7} \quad a = \underset{\textcircled{3}}{b} \times \underset{\textcircled{2}}{(c - \underset{\textcircled{1}}{d})};$$

$$\textcircled{8} \quad a = \underset{\textcircled{4}}{(b + \underset{\textcircled{1}}{c})} \times \underset{\textcircled{3}}{(d - \underset{\textcircled{2}}{e})};$$

$$\textcircled{9} \quad a = \underset{\textcircled{4}}{b} \times \underset{\textcircled{3}}{(c + \underset{\textcircled{2}}{(d - \underset{\textcircled{1}}{e})})};$$

$$\textcircled{10} \quad a = \underset{\textcircled{4}}{b} \times \underset{\textcircled{2}}{(c + \underset{\textcircled{1}}{d} - \underset{\textcircled{2}}{e})};$$



## DEVELOPING BASIC PROGRAMS

Qn1. WAP to accept 3 integers from the user and calculate and print their sum and average.

SAMPLE OUTPUT

=====

Enter 3 int:

3 4 5

Sum is 12

Average is 4.00

SAMPLE OUTPUT

=====

Enter 3 int:

3 4 6

Sum is 13

Average is 4.33