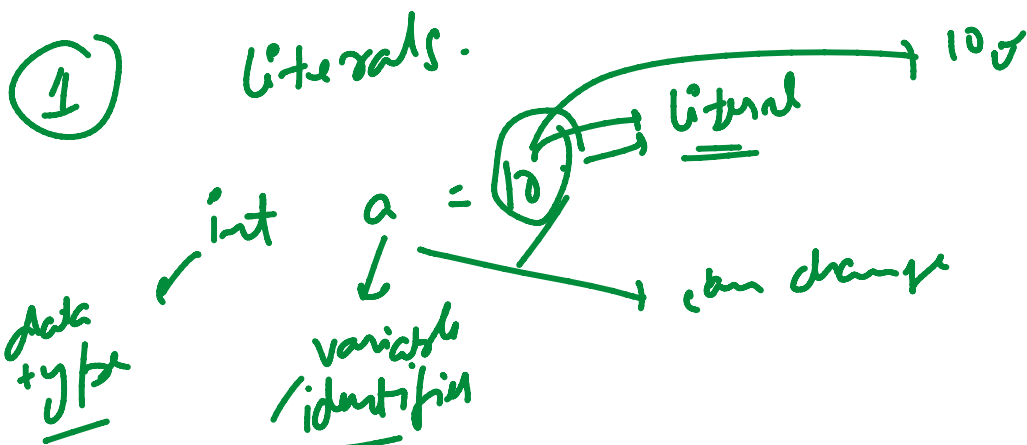
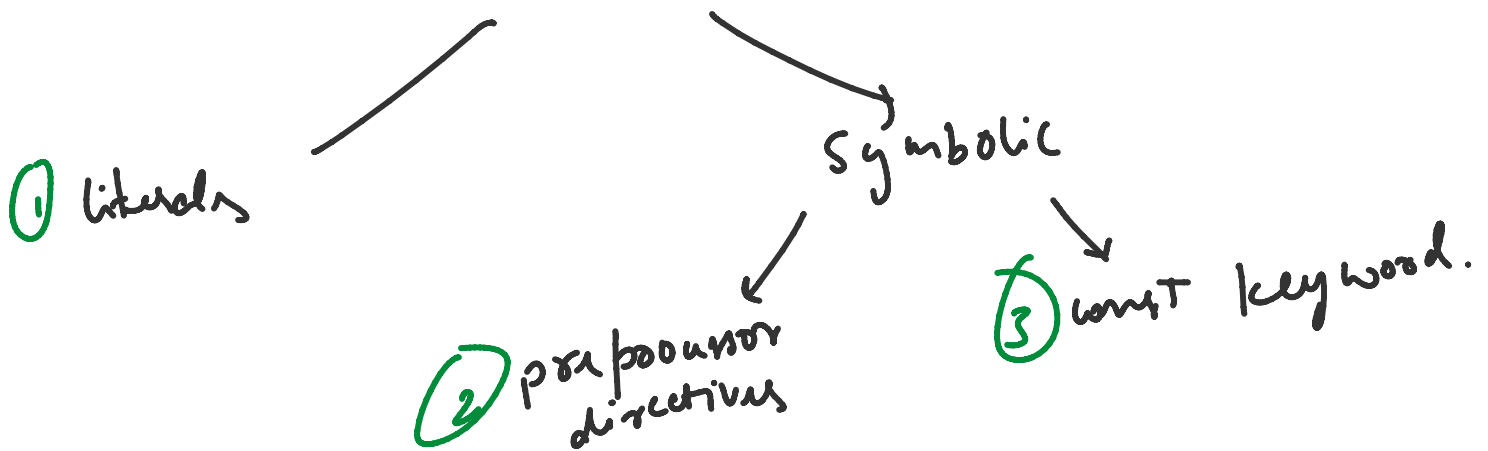


c++ has mainly 2 diff. types of constants.



literal → 10, 1, 2, - - - ∞  
 decimal point → 0.1, 10.2  
 char → '4' - - - '2'  
 string → "coding Ruckie"

(2) preprocessor Directives / Macros.

syntax → #define pi 3.14;

syntax  $\rightarrow$  +

which cal. area of a circle.

$$\pi \times r \times r$$

$\downarrow$

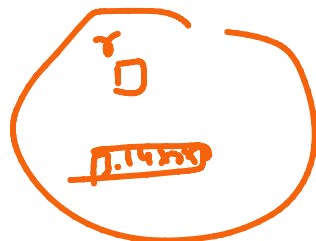
3.141592  $\approx$  3.14

constant: (X)

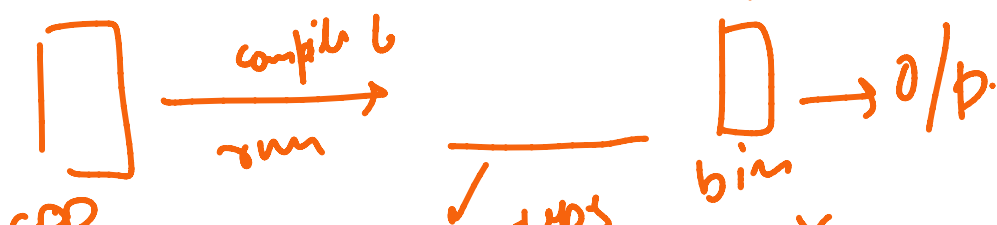
int rad;  
cin >> rad;  
int pi = 3.14  
int area = pi \* rad \* rad;

previously pi was taking space in memory.

now, pi is not taking any space:



memory saved  
access time saved



.cpp      run      314 steps      bin  
exe X

( 1st step expanded code.  
r = 4

$$(2.14) + (1 \times r \times 2)$$

18.14

const keyword.

int h = 191;

above 18, your height  
running const.

const int h = 191;

→

191

→ no one can change this  
value now.