

# String → “ ”

A sentence or a word written  
inside “ ” considered as a string.

int n = 24

# Literals & Variables ↑  
literals

- 7) Find the sum and product of 20, 30, 50. → sum , \*

8) Divide two numbers 25/10.      25/10

→ 2      quotient

9) Find the remainder when 438 is divided by 9.      / → division

% → modulo

Find the remainder when 4596 is divided by 10.      % → remainder

/ → division (quo)      10      2 → quotient      2 → remainder  
% → modulo (remainder)      25      5 → remainder

$$10 \sqrt{4596}$$
$$\begin{array}{r} 459 \\ 40 \\ \hline 59 \\ 50 \\ \hline 96 \\ 90 \\ \hline 6 \end{array}$$

$$9 \sqrt{438}$$

$$\begin{array}{r} 48 \\ 36 \\ \hline 78 \\ 72 \\ \hline 6 \end{array}$$



```
System.out.println(20+30+50);  
System.out.println(20*30*50);  
System.out.println(25/10);
```

```
System.out.println(438 % 9);
```

```
System.out.println(4596 % 10);
```

## # Literals

→ fixed values that we can directly used in our program

Eg →  $\begin{matrix} \checkmark & \checkmark & \checkmark & \end{matrix}$ , -34, etc  
        ↑      ↑      ↑      ↙  
        Int    Decimal   Character    → -ve value

## # Types of Literals

- Integer → Numerical value without any decimal point.

Eg → 4, 5, 0, 982, 10, -69, -738

- Floating Point No. - Numeric value that decimal point

Eg - 12.34, -1.5, .8.

- Characters - single letter, enclosed
  - inside a single quote ''

Eg - 'c', 'k', '@', '#', '\$'
- String → combination/seq. of char  
 " " "

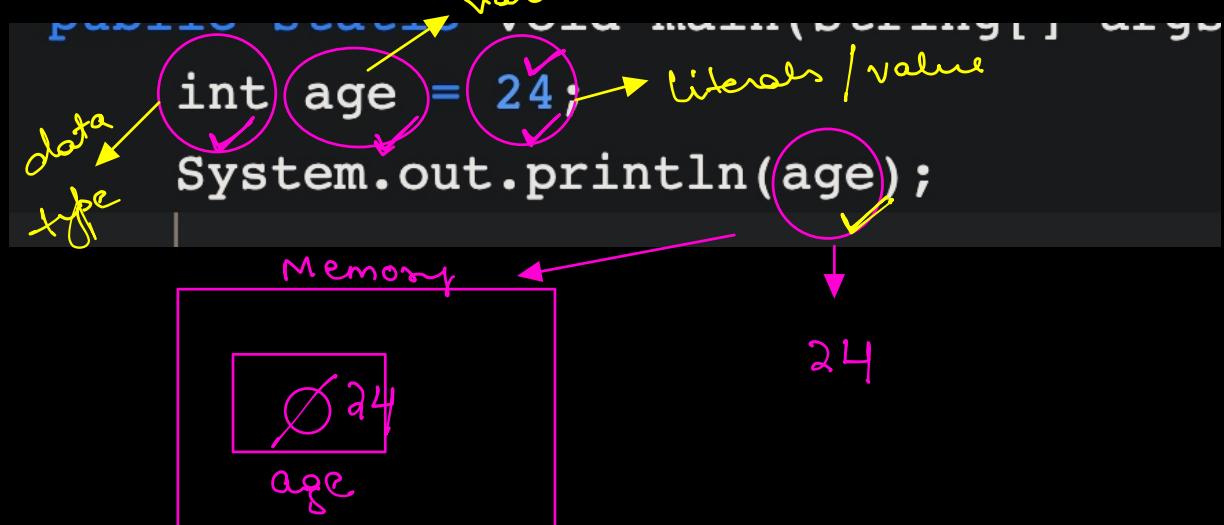
## # Variables

→ In prog, variables are used to store the data, so that we can use them later in our program.



## # Create a variable

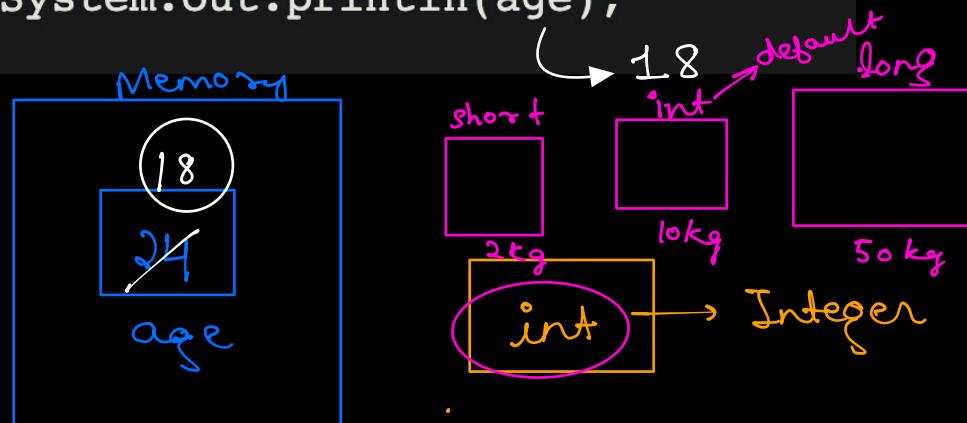
- data type
- Variable name



```

int age = 24; ✓
System.out.println(age); ✓ 24
age = 18;
System.out.println(age);

```



# Decimal → 12.5, -19.5, -1999.396

Data types

datatype

double  
float

default value

```

public class Main {
    public static void main(String[] args) {
        double price = 112.99; ✓
        float cash = 119.33f; ✓ f
    }
}

```

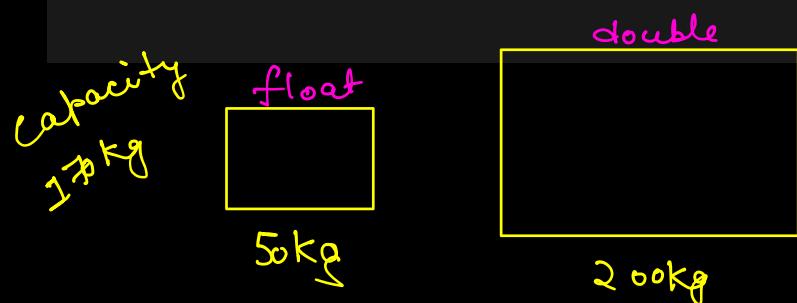
decimal value

variable

System.out.println(price);

System.out.println(cash);

float → 7 decimal  
double → 15 decimal



## # Character type of data

- char alphabet = 'k';  
print(alphabet);

```
char alpha = 'k';  
System.out.println(alpha);
```

## # Rules for naming a Variable

- Consist of alphabets, digit, \$, -(underscore)
- variable name can't start with digit
- Cannot be a keyword (Predefined Java words);  
double, System, String
- can't contain a space

Eg → salary1 ✓	• -Salary -✓
44_salary X	• total Credit X
\$salary ✓	• doubleString ✓
totalSalary ✓	• string X • xabyco

- Camel Case } → helloWorld 

- Snake Case (Python) → hello\_world

## # Boolean

↳ true / false

boolean data = true / false

print(data);  
data type



boolean data = true; → value  
variable name

System.out.println(data); ✓ → true

Memory



decimal



char

String

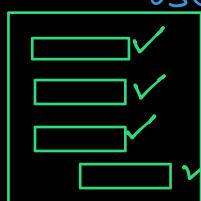
```
ublic static void main(String[] args) {  
    /* Enter your code here. Print output to STDOUT */  
    System.out.println("Hello,_World.");  
    System.out.println("Hello,_Java.");
```

## # Output

System.out.println(" ");

int age = 24  
programmer;

User



→ data

int age = 24 → user

## # Scanner

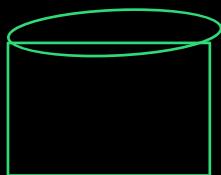
Scanner scn = new Scanner(System.in);

class int age = scn.nextInt();

Scanner scn = new Scanner(System.in);  
int age = scn.nextInt();  
System.out.println(age);

Annotations:

- Scanner: Class name
- scn: Object name
- new Scanner(System.in): Constructor call
- nextInt(): Method name
- Input method(): Description
- Object: Object type
- xerox bhaiya: Author's name



Shop (xerox)

```

int age = 24;
int price = 100;
int salary = 1000000; } → program
int marks = 100;
Scanner scn = new Scanner(System.in); →
int age = scn.nextInt(); } → user
int price = scn.nextInt();
int salary = scn.nextInt();
int marks = scn.nextInt();

System.out.println(age);

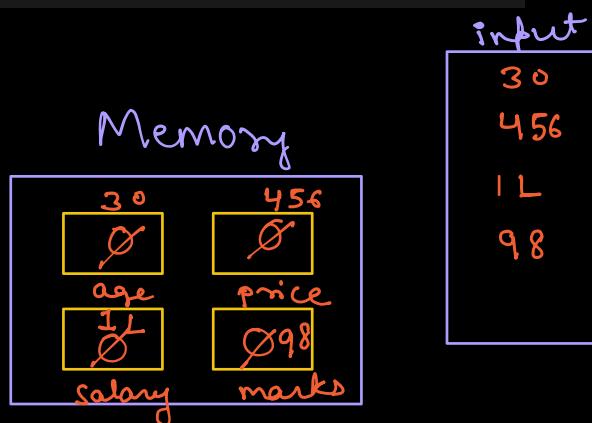
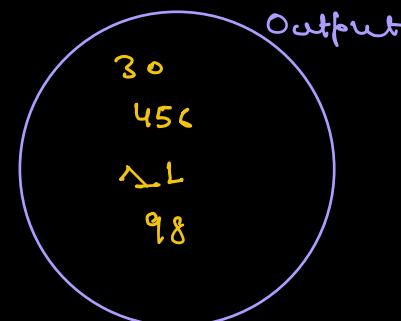
```

```

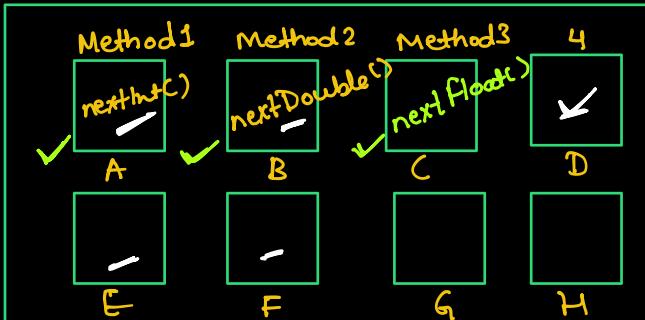
Scanner scn = new Scanner(System.in);
int age = scn.nextInt(); → 30
int price = scn.nextInt(); → 456
int salary = scn.nextInt(); → 1L
int marks = scn.nextInt(); → 98

System.out.println(age);
System.out.println(price);
System.out.println(salary);
System.out.println(marks);

```



## ✓ Class (University)



✓ Scanner

object  
Same → obj

int age = scn.nextInt();

method

double salary = scn.nextDouble();

# nextDouble()

```
Scanner scn = new Scanner(System.in);
int age = scn.nextInt();
double price = scn.nextDouble();
double salary = scn.nextDouble();
int marks = scn.nextInt();

System.out.println(age);
System.out.println(price);
System.out.println(salary);
System.out.println(marks);
```

# next float()

```
Scanner scn = new Scanner(System.in);
int age = scn.nextInt();
float price = scn.nextFloat();
double salary = scn.nextDouble();
int marks = scn.nextInt();

System.out.println(age);
System.out.println(price);
System.out.println(salary);
System.out.println(marks);
```

## Sum and Difference of x and y

Problem

Submissions

Leaderboard

Discussions

You will be given two integers  $x$  and  $y$ . You have to print the sum of  $x$  and  $y$  in the first line, and the difference of  $x$  and  $y$  in the second line.

First integer input should be stored in  $x$ , Second integer input should be stored in  $y$ .

### Input Format

In the first line the value of  $x$  will be given and in the second line the value of  $y$  will be given.

```
- Scanner scn = new Scanner(System.in);
int x → input (scn.nextInt());
y → input
print (x+y);
print (x-y);
```

```
/* Enter your code here. Read input from System.in */
Scanner scn = new Scanner(System.in);
int x = scn.nextInt(); 97
int y = scn.nextInt(); 20
System.out.println(x+y); ✓ 29
System.out.println(x-y); ✓ -11
```

Memory

