"The only thing that stands between you and your dream is the will to try and the belief that it is actually possible."

Literals & Variable

- Literals → fixed value - directly in our program.

Eg → 5, -12.3, 'c' ← character

↑ Integer ↑ decimal

Types of literals

- Integer → 10, 5, -101, 12, etc.
- floating point No. → 1.85, 3.5, 552.2, -4.4
- character → 'c' 'a', '+', 'L', '*', '$'
- String - "krishna", "Hello World".

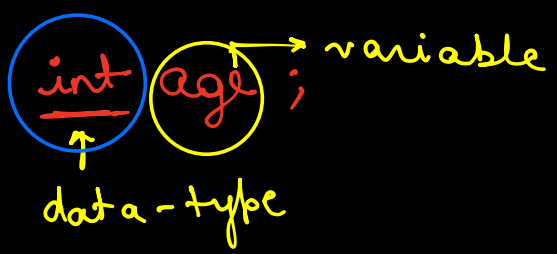
Variables

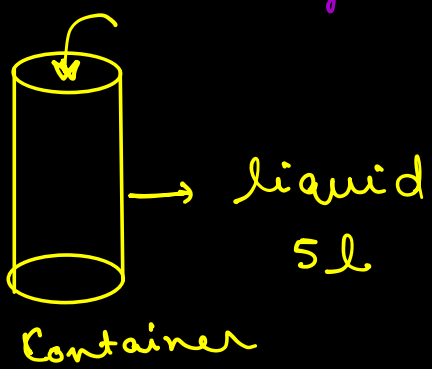
↳ are used to store data, so that we can use it later in the program.

Create A Variable

↳ Variable name → unique name

↳ data type → the type of data we need to store in our variage



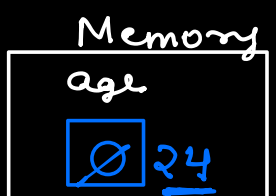



```
int age;
age = 24;
```

int age; → declaration

age = 24; → assigning value to age variable

initialization




```
int age;
age = 24;
System.out.println(age); → 24
System.out.println("age"); → age
```

- 2 data-types to store a decimal value

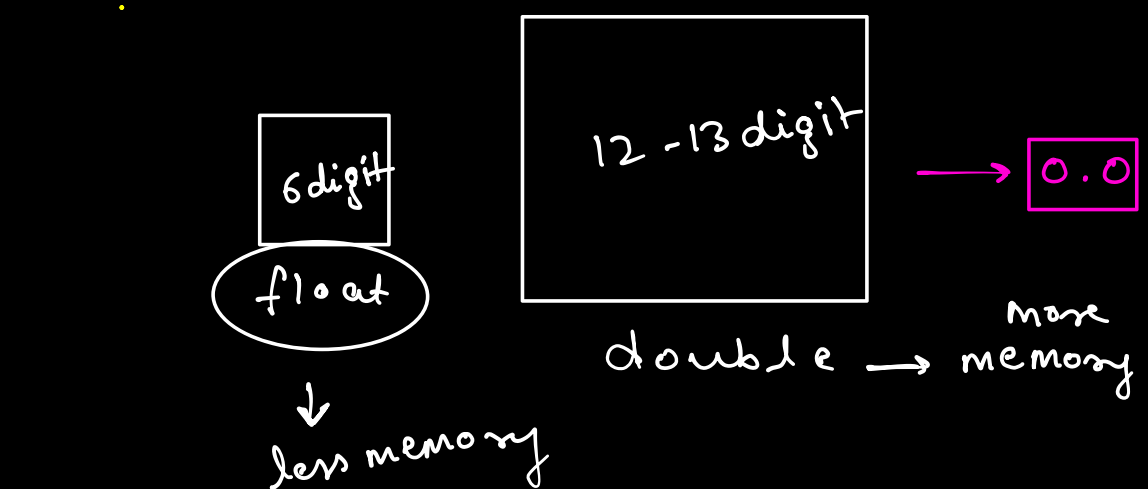
→ float / double → decimal value

```
float salary = 500000.98f;
double price = 25.99;
System.out.println(salary);
System.out.println(price);
```

variable

data type

→ data, value, Literals



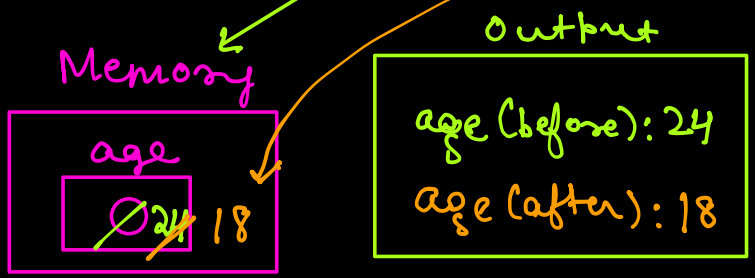

```
int age = 18;
```

→ Literal

data-type

variable

```java
int age;
age = 24;
System.out.println("age (before): " + age);
age = 18; // re-declaration
System.out.println("age (after): " + age);
```



Rules for Naming a Variable.

- variable names consist → alphabets, digits, $, _ (underscore)
  Hello_World
  $Krishna
- Variable name can't start with no.
  4Yash
- Variable name doesn't contain any reserved Keyword. (Predefined)
  Eg → double, String, System, println() ✗

Eg → salary ✓

_salary ✓

4tomato ✗

private ✗ → predefined

total salary ✗ → space

total_salary → snake_case → python

Java ← {totalSalary} → camel case

Challenges

1. Store the value 100 in x variable of int data type and then print x.

int x = 100

2. Store the value 235 in y variable of int data type and then print y+10

int Y = 235.

3. Store values 165, 84 in x and y variable of int data type and print x+y, x-y, x*y, x/y.

x = 165

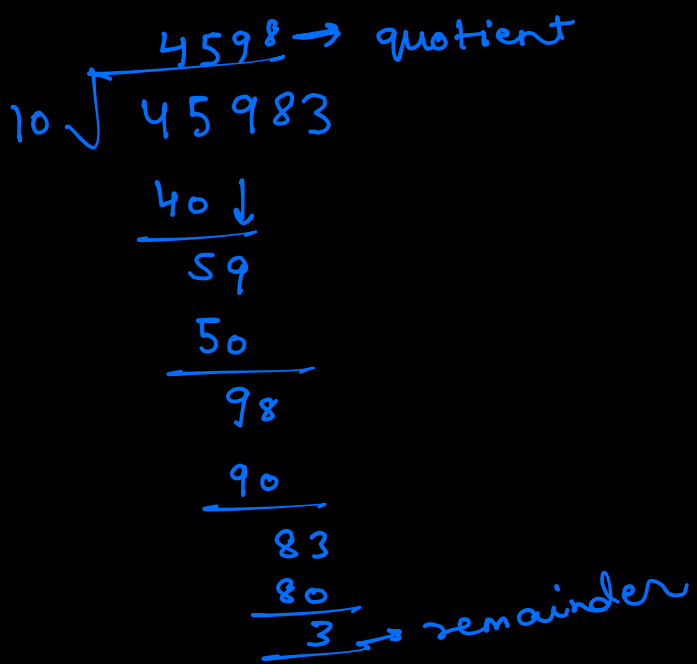
Y = 84

4. Store values 20, 30, 40 in the variable x, y, z each of int data type and print x+y-z.

5. Remove the last digit of a given number. Say 45983

6. Find the last digit of a given number. Say 45983

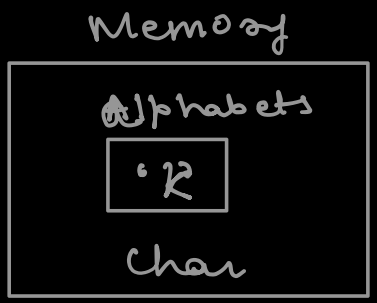
```
System.out.println(45983 / 10); // 4598
System.out.println(45983%10); // 3
```



- int ✓
- float ✓
- double ✓
- char

→ single quot

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



- boolean

Type	Used for
• Int • Double • float • char • boolean	Integer Decimal characters t/f

Scanner

packages < class < method

output → System.out.println();
↑ output

int x = 10;
→ user

Input →

Scanner scn = new Scanner(System.in);
class
input
Scanner → xerox shop
scn → obj → xerox waley bhaiya

int x = scn.nextInt();
nextInt() → paper
method

print(x);

```
Scanner scn = new Scanner(System.in);
int x = scn.nextInt();
int y = scn.nextInt();
int z = scn.nextInt();
System.out.println(y);
System.out.println(x);
System.out.println(z);
```

class
object
11
10
12
method

Memory

x → 11
y → 10
z → 11

input

11
10
12

```
double salary = scn.nextDouble();
System.out.println(salary);
```

datatype

method

```
String name = scn.next();
```

→ method

→ String

```
public static void main(String[] args) {
    Scanner scan = new Scanner(System.in);
    int a = scan.nextInt();
    int b = scan.nextInt();
    int c = scan.nextInt();

    System.out.println(a);
    System.out.println(b);
    System.out.println(c);
```

{ nextLine ( )

```java
Scanner scn = new Scanner(System.in);


String str = scn.next();
scn.nextLine();
String str1 = scn.nextLine();
System.out.println(str);
System.out.println(str1);
```

```
Hi Everyone Welcome To Geekster.
Hi Everyone Welcome To Geekster.
```

Hi