Revise.

```
print("Hello");
print("World");
```
} → HelloWorld

```
println("Hello");
println("World");
```
} → Hello / World

1. print"Hello World. I am here." : → print(" ") ✓
2. print the pattern-1 : → println() → for diff line.
3. print star pattern-1 : → * * * * * → print()
4. print star pattern-2

```
* * * * *
* * * * *
* * * * *
```
} → println.

print star pattern-3

Problem | Submissions | Leaderboard | Discussion

In this clallenge, you have to print the star pattern given below.

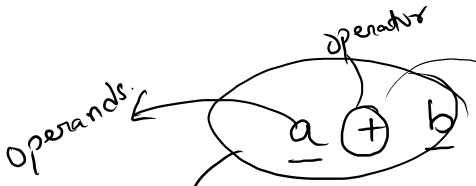
```
*****
*
*
*
*****
```

```java
public class Solution {
    public static void main(String[] args) {
        System.out.println("*****");
        System.out.println("*");
        System.out.println("*");
        System.out.println("*");
        System.out.println("*****");
    }
}
```

Operators.

* Mathematical operators.

+ , − , / , * , % → modulo



a / b

a * b

a % b

15 % 2 = 1

$$2\overline{)15}\ \begin{matrix}7\\14\\\hline 1\end{matrix}$$

→ remainder.

7 % 5 = ? (2)

$$5\overline{)7}\ \begin{matrix}1\\5\\\hline 2\end{matrix}$$

a %. b.

$$\begin{cases} 15 \,\%.\ 2 = 1 \\ 7 \,\%.\ 5 = 2 \\ 7 \,\%.\ 7 = 0 \end{cases}$$

$$7 \overline{)\ 7\ } \quad 1, \quad 7, \quad 0$$

case: $p \,\%.\, q$ where $p < q \Rightarrow (p)$

$$5 \,\%.\, 7 = 5$$

$$7 \overline{)\ (5)\ }$$

$p \,\%.\, q$ where $p < q = p$

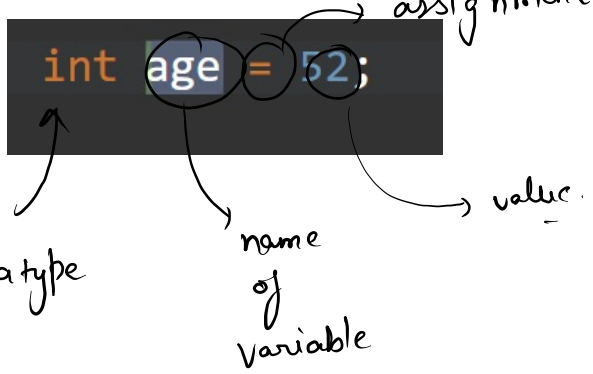
$5 \,\%.\, 7 = 5 \quad 7 \overline{)\ (5)\ }$

Variables

↳ if you want to store some data/value.

"Container"

↳ which holds value

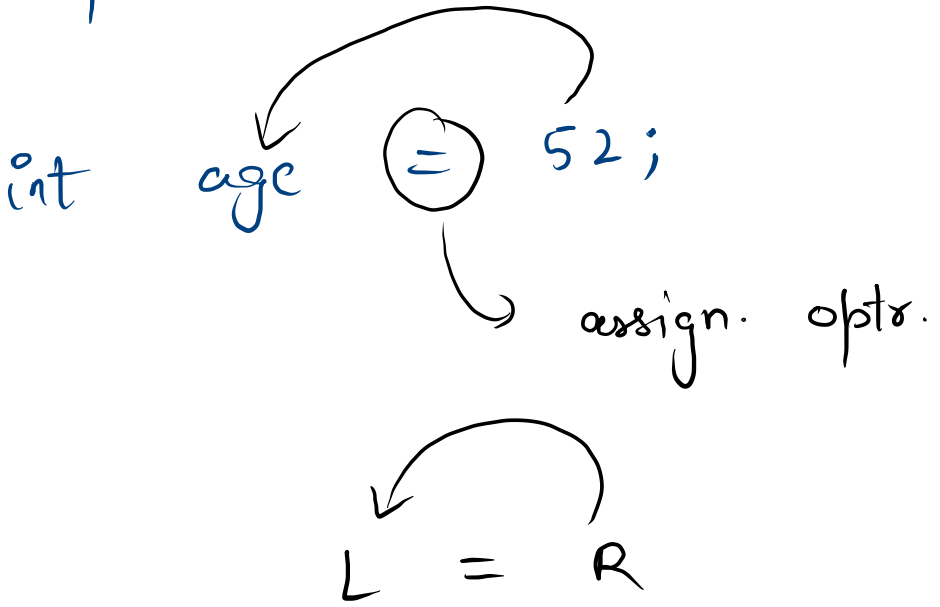



```java
public class Main
{
    public static void main(String[] args) {
        int age = 52;
        String name = "aman";

        age = 53;
        name = "ram";

        System.out.println(age);
        System.out.println(name);
    }
}
```

Assignment Operator.



Input

↳ We use Scanner class provided by Java

↳ pre-written code.

Steps

1. import Scanner class (pre-written code)
2. Create object of Scanner class.
3. Take input.

```java
import java.util.Scanner;

public class Main
{
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int age = scn.nextInt();
        System.out.println(age);
    }
}
```

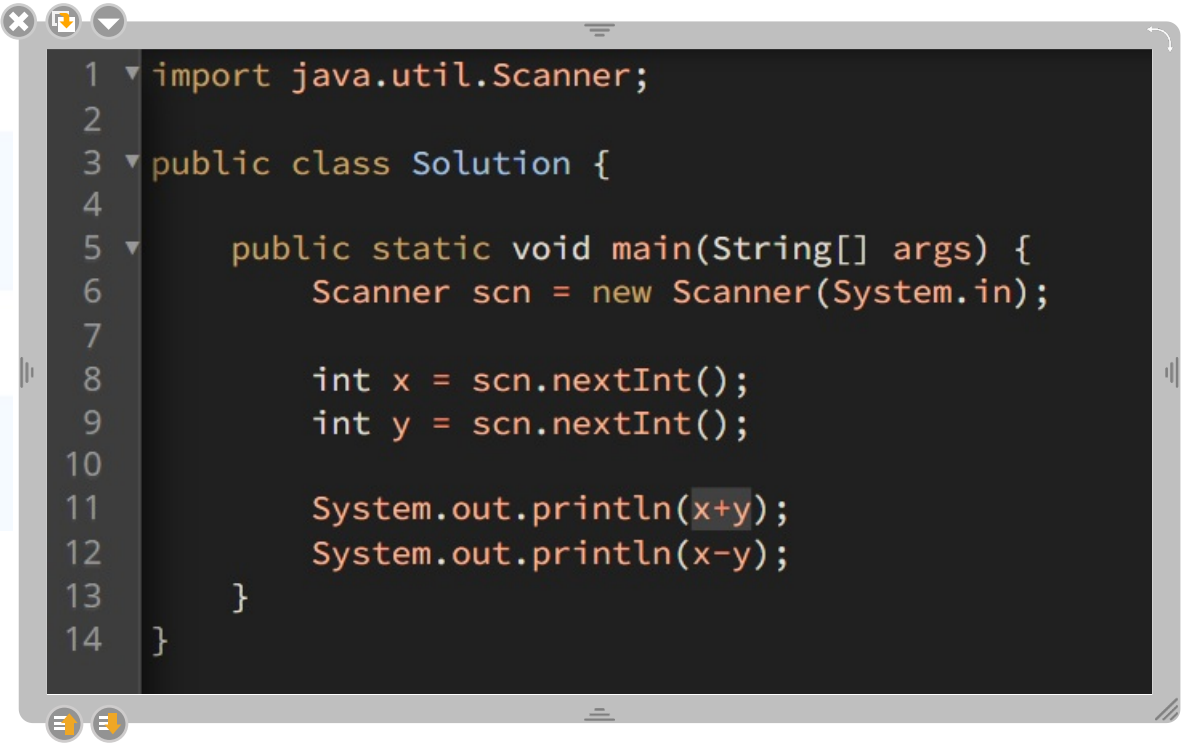
Sum and Difference of x and y

Sample Input 0

```
40
10
```

Sample Output 0

```
50
30
```



```java
import java.util.Scanner;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);

        int x = scn.nextInt();
        int y = scn.nextInt();

        System.out.println(x+y);
        System.out.println(x-y);
    }
}
```

Area and Perimeter 5

Sample Input 0

```
10
20
```

Sample Output 0

```
200
60
```

area = $l * b$

perimeter = $2(l + b)$ = $l + l + b + b$

= $2 * l + 2 * b$

Fahrenheit and Celsius

Problem | Submissions | Leaderboard | Discussions

You will be given Fahrenheit as input that should be stored in a double variable and print your answer in Celsius of data-type double.

far → i/p (double)

far → cel → print ?

* cel = (far - 32) * (5/9);

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);

        double far = scn.nextDouble();
        double cel = (((far - 32.0) *5.0)/9.0);
        System.out.println(cel);

        |
    }
}
```

Double data type.

↳ decimal value.

Last Digit.

$n = 1234$

$d = 4$

?

%

***

n % 10 = last digit

$10 \overline{)1234}$ → 123

10

23

20

34

30

4

Add Last Digits

Sample Input 0

```
x = 23456
y= 9873
```

Sample Output 0

```
9
```

d1 = x % 10 = 6

d2 = y % 10 = 3

System.out.println(d1 + d2);

* 1234 % 100 = ? = 34

1234 % 1000 = 234

```
        12
100 ) 1234 (
      100
      ----
       234
       200
       ---
        34
```

ans = 34