⇒ return keyword

↳ return back some value from where it is called.

↳ destroys the function

Note :- we cant write any statement after return keyword got executed.

→ difference

break :- destroy the loop

return :- destroy the function

Swap x and y

i/p :- $x = 5$, $y = 6$

o/p :- $x = 6$, $y = 5$

process :-

Imp

```
int c = x;
x = y;
y = c;
```

x=5	y=6	c
5	6	5
6	6	5
6	5	5

Code

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt();
    int y = scn.nextInt();

    swap(x, y);
}

public static void swap(int x, int y) {
    int c = x;
    System.out.println("c = " + c);

    x = y;
    System.out.println("x = " + x);

    y = c;
    System.out.println("y = " + y);

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

Swap x y z

(do what it says)

x = 10
y = 20
z = 30

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt(); 10
    int y = scn.nextInt(); 20
    int z = scn.nextInt(); 30

    int temp = x;  ⟶ temp = 10
    x = z;         ⟶ x = 30
    z = y;         ⟶ z = 20
    y = temp;      ⟶ y = 10

    System.out.println(x);
    System.out.println(y);
    System.out.println(z);
}
```

⇒ Digit Traversal :- /, %

Given x and y, print xy

i/p :- $x = 5$, $y = 7$

o/p :- xy = 57

$$ans = (x * 10) + y$$

$$= (5 * 10) + 7$$

$$= 50 + 7$$

$$= 57$$

$5 * 10$

↓

50

+7

57

Code

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int t = scn.nextInt();

    for (int i = 0; i < t; i++) {
        int x = scn.nextInt();
        int y = scn.nextInt();

        int ans = printXY(x, y);
        System.out.println(ans);
    }
}

public static int printXY(int x, int y) {
    int ans = (x * 10) + y;
    return ans;
}
```

Print digit by digit of a three digit number

```
int n = 347;
```

o/p

```
7
4
3
```

n = 347

```
a = n % 10;
b = n / 10;   → 34
c = b % 10;
d = b / 10;
```

Note:-

n = 1234567

a = n % 10000 // 4567

b = n / 10000 // 123

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();  ⟶ 345

    int a = n % 10;  ⟶ 5
    int b = n / 10;  ⟶ 34
    int c = b % 10;  ⟶ 4
    int d = b / 10;  ⟶ 3

    System.out.println(a);
    System.out.println(c);
    System.out.println(d);
}
```

Reverse a 3 digit number

```
int n = 123;
int ans = 321;
```

n = 123

```
int a = n % 10;   // 3
int b = n / 10;   // 12
int c = b % 10;   // 2
int d = b / 10;   // 1
```

321

```
int rev = (a * 100) + (c * 10) + d
```

= 300 + 20 + 1

= 321

Code

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int t = scn.nextInt();

    for (int i = 0; i < t; i++) {
        int n = scn.nextInt();
        int ans = reverse(n);
        System.out.println(ans);
    }
}

public static int reverse(int n) {
    int a = n % 10;
    int b = n / 10;
    int c = b % 10;
    int d = b / 10;

    int rev = (a * 100) + (c * 10) + d;
    return rev;
}
```