

Print the final number xyzw...

Ex:-

n = 7

num = 3 ,

num = 2 ,

num = 0 ,

num = 5 ,

num = 6 ,

num = 7 ,

num = 7

int ans = 0 [ans = (ans * 10) + num]

$$\text{ans} = 0 * 10 + 3 = 3$$

$$\text{ans} = 3 * 10 + 2 = 32$$

$$\text{ans} = 32 * 10 + 0 = 320$$

$$\text{ans} = 320 * 10 + 5 = 3205$$

$$\text{ans} = 3205 * 10 + 6 = 32056$$

$$\text{ans} = 32056 * 10 + 7 = 320567$$

$$\text{ans} = 320567 * 10 + 7 = 3205677$$

Code

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    int n = scn.nextInt();  
    int ans = 0;  
    for (int i = 0; i < n; i++) {  
        int num = scn.nextInt();  
        ans = ans * 10 + num;  
    }  
    System.out.println(ans);  
}
```

Reverse n-digit number gmp

n = 5

↳ num = 1

↳ num = 5

↳ num = 7

↳ num = 3

↳ num = 2

int ans = 0 , (ans = ans * 10 + num)

ans = 0 * 10 + 1 = 1

ans = 1 * 10 + 5 = 15

ans = 15 * 10 + 7 = 157

ans = 157 * 10 + 3 = 1573

ans = 1573 * 10 + 2 = 15732

$$\underline{\underline{n = 15732 > 0}}$$

Imp

$$\underline{\underline{\text{int reverse} = 0}}$$

$$\text{int rem} = n \% 10, \text{ reverse} = \text{reverse} * 10 + \text{rem}, n = n / 10$$

$$\text{int rem} = 2, \text{ reverse} = 0 * 10 + 2 = \underline{\underline{2}}, n = 1573 > 0$$

$$\text{int rem} = 3, \text{ reverse} = 2 * 10 + 3 = \underline{\underline{23}}, n = 157 > 0$$

$$\text{int rem} = 7, \text{ reverse} = 23 * 10 + 7 = \underline{\underline{237}}, n = 15 > 0$$

$$\text{int rem} = 5, \text{ reverse} = 237 * 10 + 5 = \underline{\underline{2375}}, n = 1 > 0$$

$$\text{int rem} = 1, \text{ reverse} = 2375 * 10 + 1 = \underline{\underline{23751}}, n = 0 > 0$$

x

condition: $n > 0$

Code

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    → int n = scn.nextInt();  
  
    int ans = 0;  
    for (int i = 0; i < n; i++) {  
        int num = scn.nextInt();  
        ans = ans * 10 + num;  
    }  
    System.out.println(ans);  
    int result = reverse(ans);  
    System.out.println(result);  
}
```

```
public static int reverse(int n) {  
    → int reverse = 0;  
  
    while (n > 0) {  
        int rem = n % 10;  
        reverse = reverse * 10 + rem;  
        n = n / 10;  
    }  
  
    return reverse;  
}
```

n = 123

reverse = 0

123 > 0, rem = 3
reverse = 3

12 > 0, rem = 2
reverse = 32

1 > 0, rem = 1
reverse = 321

0 > 0, ×

Write a function to check if an Armstrong number or not

Armstrong :-

int n = 153 , digits = 3

ans $\Rightarrow (1)^3 + (5)^3 + (3)^3$

ans $\Rightarrow 1 + 125 + 27$

ans $\Rightarrow 153$

n = 1634 digits = 4

$\Rightarrow (1)^4 + (6)^4 + (3)^4 + (4)^4$

$\Rightarrow 1634$

$$\underline{\underline{n = 153}}$$

$$\underline{\underline{\text{int rem} = n \% 10}}, \quad \text{int ans} = 0, \quad n = n / 10$$

$$\text{rem} = 3, \quad \text{ans} = (3)^3, \quad n = 15 \quad (n > 0)$$

$$\text{rem} = 5, \quad \text{ans} = (3)^3 + (5)^3, \quad n = 1 \quad (n > 0)$$

$$\text{rem} = 1, \quad \underline{\underline{\text{ans} = (3)^3 + (5)^3 + (1)^3}}, \quad \underline{\underline{n = 0}} \quad (n > 0) \times$$

$$n = 153, \quad \text{ans} = (3)^3 + (5)^3 + (1)^3$$

if ($n == \text{ans}$) return true;

else return false;

```
public static void main(String[] args) {  
    Scanner scn = new Scanner(System.in);  
    int n = scn.nextInt();  
    for (int i = 0; i < n; i++) {  
        int num = scn.nextInt();  
        boolean ans = isArmstrong(num);  
        System.out.println(ans);  
    }  
}
```

```
public static boolean isArmstrong(int num) {  
    int ans = 0;  
    int temp = num;  
    while (num > 0) {  
        int rem = num % 10;  
        ans = ans + (rem * rem * rem);  
        num = num / 10;  
    }  
  
    if ( ans == temp ) {  
        return true;  
    } else {  
        return false;  
    }  
}
```