

## Rotate 7-digit number to right by three

$n =$  1 2 3 4 5 6 7       $\% 10$

$\% 10 \rightarrow$  5 6 7 1 2 3 4

1 2 3 4 5 6 7

$\% 10 \rightarrow 7$

$\% 100 \rightarrow 67$

$\% 1000 \rightarrow 567$

✓  $\text{int } \underline{\text{lastthree}} = n \% 1000 \rightarrow \underline{\underline{567}}$

✓  $\text{int } \text{firstfour} = n / 1000 \rightarrow 1234$

✓  $\text{return } 567$   
 $\text{lastthree} \times 10000 + \text{firstfour}$

$567 \times 10000 + 1234$

$5670000 + 1234 = \underline{\underline{5671234}}$

# HW\_Check Palindrome

Eg.  $\rightarrow \begin{array}{r} 121 \\ \hline 123 \end{array}$

① main

② reverse  $\rightarrow 121$  (int)

③ boolean isPalindrome (int num)  
return  $\frac{\text{number} == \text{reverse}(\text{num})}{121 == 121 \text{ true}}$

```
int t;  
for(){  
    int num;  
    if(isPalindrome(num)){  
        syso("YES");  
    }  
    else{  
        syso("NO");  
    }  
}  
  
public static int reverse(int num){  
  
}  
  
public static boolean isPalindrome(int num){  
    return num == reverse(num);  
}
```

## HW\_Print Armstrong in a range

Eg.  $\rightarrow \underline{1234}$

① no. of digits  $\rightarrow$  count

② power

In-built function of find length of a number

$\text{int } n = \text{String.valueOf(number).length();}$   
 $\text{String.valueOf(1234).length()} \rightarrow 4$

$1234 \rightarrow "1234"$

```
int n = 1234567;  
int ans = String.valueOf(n).length();  
System.out.println(ans);  
}
```

```

public static boolean isArmstrong(int number){
    int original = number;
    int result = 0;
    int n = String.valueOf(number).length();

    while(original != 0){
        int rem = original % 10;
        result += power(rem, n);
        original /= 10;
    }
    return result == number;
}

public static int power(int 8base, int nexpo){
    int result = 1;
    for(int i = 1; i <= expo; i++){
        result *= base;
    }
    return result;
}

```

```

public static void main(String[] args) {
    /* Enter your code here. Read input from S

    Scanner s = new Scanner(System.in);
    int x = s.nextInt();
    int y = s.nextInt();

    for(int i = x; i <= y; i++){
        if(isArmstrong(i)){ - 300, false
            System.out.println(i);
        }
    }
}

```

$x = 300$

$y = 500$

$i = 300 \leq 500 \text{ T}$

300

$n = 3$

result = 1

300

$ori = 300$   
result = 0

$300 \mid = 0 \text{ T}$

$1 \leq 3 \text{ T}, 2 \leq 3 \text{ T}, 3 \leq 3 \text{ T}$

$27 == 300 \text{ false}$

$300 \% 10 \rightarrow 0$

$300 / 10 \rightarrow 30$

$3 \% 10 = 3$   
 $1 \times 0 \times 0 \times 0 = 0$

301

$0 + 0$

$0 + 0 = 0$

$0 + 27 = 27$   
 $0^3 \rightarrow 0$

$300 / 10 \rightarrow 30$

$30 / 10 \rightarrow 3$

$3 / 10 = 0$

$3^3 \rightarrow 27$