Given x and y, print xy

$x = 3$
$y = 4$

$\Rightarrow$ 34

$\{ \quad x * 10 + y \quad =$

$= 3 * 10 + 4 \quad = 34$

Print the final number xyzw...

| Problem	Submissions	Leaderboard	Discussions

Take **n** as an integer input. Then take **n** digits as integer inputs and form a number from it and print that number as an integer output.

Input Format

For each test case, **n** will be given as an integer input in the first line,

then **n** digits will be given as integer inputs in each line.

Constraints

digits

$0 \longrightarrow 9$

eg. ④ ⟶ n

5
7
6
2

int. ⟶ 5762.   ans = 0

ans = 0 5 57 576 5762 n

x = 5 7 6 2

x = i/p

ans = ans * 10 + x.

(3)

$\begin{array}{l}3✓\\5\\7\end{array}$

$ans = \boxed{ans} * 10 + x$

$n = 3$

$x = 3$

$x = 5$

$x = 7$
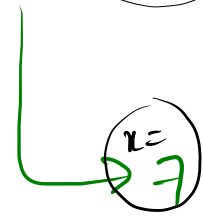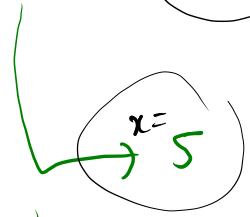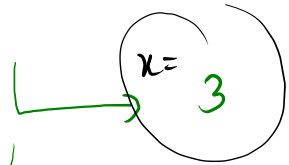
$ans = \cancel{0} \;\; \cancel{3} \;\; \cancel{35} \;\; \boxed{357} \qquad ans = \underline{357}$

$ans = 0 * 10 + 3$

$ans = 3 * 10 + 5$

$ans = 35 * 10 + 7 = 357$

✓ Code by yourself $\longrightarrow$ (1st tomorrow)

Reverse n-digit number

Problem	Submissions	Leaderboard	Discussions

Take a number **n** greater than or equal to **zero** as an integer input.

Then you will be given **n** digits as integer inputs and you have to form a number from it. Print the number formed.

Then you have to **reverse** the digits of this number. And then print the **final reversed number** in the next line.

Sample Input 0

```
3
2
5
6
```

Sample Output 0

```
256
652
```

3
2
5
6

→ 256

Reverse.

(n)

n = (5 7 6 9 ②) $\longrightarrow$ 2 9 6 75

ans =

$ld = n \% 10$

$n = n/10$

2
9
6
7
5
$\longrightarrow$ 29675.

Hint:

1 2   3 4 5

/1000

%1000

(12)   }   (3 4 5)

1 2 3 4 5

/100   %100

(123)   (45)

100) 1 2 3 4 5
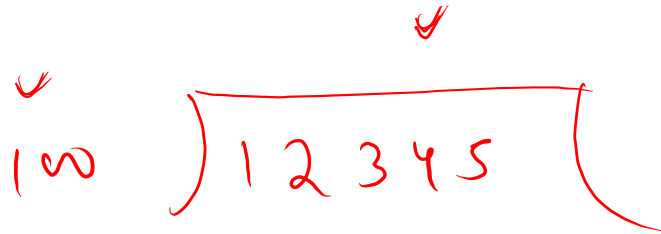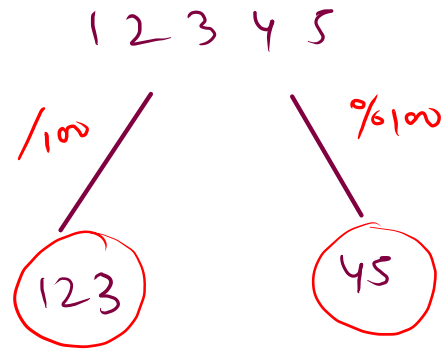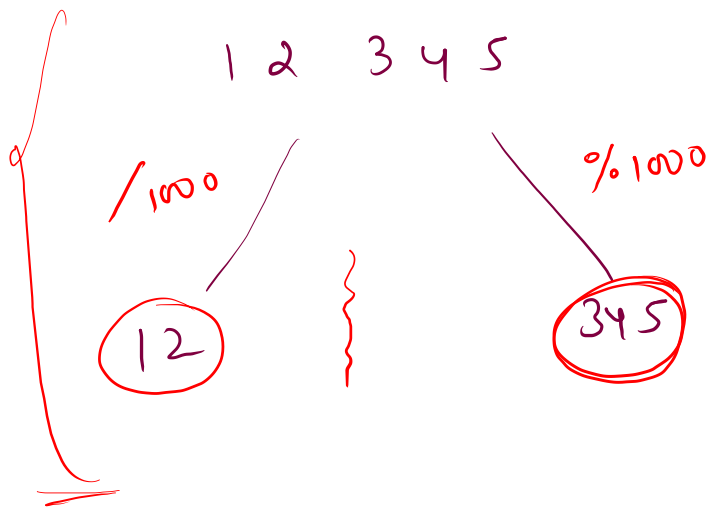
remainder → %100

Rotate 7 Digit by 3.

Take **n** as an integer input, you have to pick the last **3** digits of the number of and put them in the starting.

eg. 1234567 is given, then this number should transform to 5671234.

$$n = \boxed{1\ 2\ 3\ 4}\ \overset{b}{\boxed{5\ 6\ 7}}$$
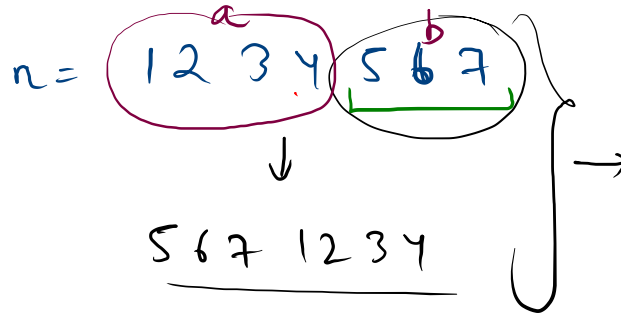
$$567\ 1234$$

1. find a & b.
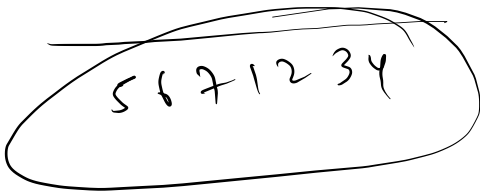
$$a = n / 1000$$
$$b = n \% 1000$$

2. Rotate.

$$b * 1000 + a$$

$$567\ 0\ 0\ 0\ 0$$
$$1\ 2\ 3\ 4$$
$$\boxed{5671234}$$

$$2 \quad 3 \quad 4 \quad 5 \quad | 6 \quad 7 \quad 1) \quad \rightarrow \quad 671 \quad 2345$$

a ... b
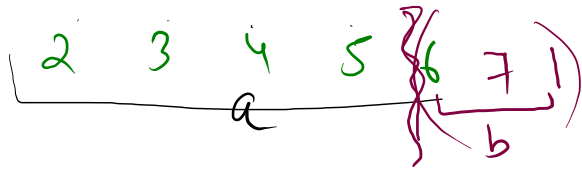
$b = \quad n \% 1000 \quad = 671$

$a = \quad \dfrac{n / 1000}{} \quad = 2345$

$$1234(5) / 10 = \rightarrow 1234$$
$$123(45) / 100 \rightarrow 123$$
$$12(345) / 1000 \rightarrow 12$$

final. $\quad \underline{b * 10000} \quad + a$

$$671 0 0 0 0$$
$$+ \quad 2345$$
$$\overline{671 2345}$$

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

public class Solution {

    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 a = n / 1000;
            int b = n % 1000;
            int ans = b * 10000 + a;
            System.out.println(ans);
        }


//          while(t > 0){

//              t--;
//          }

    }
}
```

n ✓

k ✓

7 ✓

3 ✓

$n \,/\, 10^k$

$n \,\%\, 10^k$

$k=3$

$mul = 1$

for $(1 \longrightarrow k)$

$\{$

$mul *= 10;$

$\circlearrowright$

1000

$1 \times 10 \times 10 \times 10$

1 2 3 4 (5 6)

$n \% 100$

$n / 100$

$n = 6$

$k = 2$

1 2 3 4 5 6

$a = n / 10^k$

$b = n \% 10^k$

$b * \boxed{10^{n-k}} + a.$

1.

K = 3

mul = 1

$$1 \times \overbrace{(10 \times 10 \times 10)}^{k}$$

2.

Math.pow (10, K);

Math.pow (x, y); x^y

Armstrong Number

$n = \boxed{153}$

$$1^3 \quad + \quad 5^3 \quad + \quad 3^3$$

$$ans = 1 + 125 + 27 = 153$$

$$\boxed{ans == n}$$

370

$3^3 + 7^3 + 0^3$

$27 + 343 + 0$

$$\begin{array}{r} 1 \\ 343 \\ 27 \\ \hline 370 \end{array}$$

$$n = 111$$

$$1^3 + 1^3 + 1^3$$

$$= \boxed{3} \ne n$$

logic.   Armstrong   number.

$$n = \underline{\quad 1 \quad 5 \quad} \quad ③ \rightarrow 15 \rightarrow ①$$

ans = $\cancel{0}$ $\cancel{27}$ $\cancel{152}$ (153) ✓

ans += d*d*d

int d = n % 10

```java
    public static  boolean checkArmstrong(int n){
        int originalN = n;
        int ans = 0;
        while( n > 0 ){
            int d = n % 10;
            ans += (d*d*d);

            n= n/10;
        }
        if(ans == originalN){
            return true;
        }
        else{
            return false;
        }

    }

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

        while(t > 0){
            int n = scn.nextInt();
            boolean ans = checkArmstrong(n);
            System.out.println(ans);

            t--;
        }
    }
}
```

$n = 15\cancel{3}. \cancel{15} \cancel{1} \; 0$ original $N = \boxed{153}$

$ans = \cancel{0}. 27 \; 1\cancel{5}2 \; \boxed{153}$

$n > 0$

$1 > 0$

$\checkmark \; ans = (ans + (d*d*d));$

$d = 1$

$\boxed{0 > 0}$

$ans \mathrel{+}= (d^3)$

$= ans + d^3 \;.$

$n = \underline{1\ \ 2}\ \textcircled{3}$

original $N = n \brace 123$

$ans = 3^3 \quad + \quad 2^3 \quad + \quad 1^3$

$ans = \cancel{0}\ \ 27\ \ \cancel{35}\ \ 31$

$ans == originalN.$

$n = 123$

$d = n\%10 = 3$

$d * d * d.$

$n = n/10$

$n = 12$

$d = n\%10 = 2.$

$d * d * d.$

$n = n/10$

$n = 1 \qquad d = n\%10 = 1$

$d * d * d.$

$n = n/10$

$n = ? =$

$n = 0 \qquad ?$

$ans \quad == \quad n.$ ✓

$ans \quad == 0$ ✓

$ans == \text{original } N$

func.

5 — 10

1. You write → user defined func.

2. Java provided → in built

Math

gcd / hcf

$12 = 1, 2, 3, 4, 6, \boxed{12}$ =

$36 = 1, 2, 3, 4, 6, 9, 12, 18, 36$

gcd or hcf $(12, 36) = 12$

a : $\quad 35 = 1 \quad \boxed{5} \quad 7 \quad 35$

$$\left\{ \begin{array}{c} false \\ gcd > \min(a,b) \end{array} \right\}$$

b : $\quad 100 = 1 \quad 2 \quad 4 \quad \boxed{5} \quad , \quad 10 \quad , \quad 20 \quad , 25, \quad 50, \ 100$

logic: $\begin{bmatrix} i = \\ \boxed{1} \quad \longrightarrow \\ \underline{\hspace{2cm}} \cdots \cdots \quad a \end{bmatrix}$

$(a \% i = 0 \quad \&\& \quad b \% i == 0)$

$\quad \hookrightarrow \quad hcf = i$

$a = 35$

    1   5 7 35

$b = 100$

   1 2 4 5 10 20 25 50 100

$gcd = \cancel{1}\ \cancel{1}\ 5$

$i = \cancel{1}\ \cancel{2}\ \dfrac{\cancel{3}}{4\ 5} \cdots 35$

$a \% i == 0 \qquad \&\& \qquad b \% i == 0$

$\checkmark\quad 35 \% 1 == 0 \qquad\qquad 100 \% 1 == 0$

$\boxed{35 \% 2 == 0}\ \times$

$\checkmark\ \ 35 \% 5 == 0 \qquad\qquad 100 \% 5 == 0$

$gcd = 5$

```java
public class Solution {

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

        for(int i = 1; i <= t; i++){

            int a = scn.nextInt();
            int b = scn.nextInt();

            int min = Math.min(a,b);
            int gcd = 1;
            for(int f = 1; f <= min; f++ ){
                if(a % f == 0 && b % f == 0){
                    gcd = f;
                }
            }
            System.out.println(gcd);


        }
    }
}
```

gcd = 1

$a = 12$ $min = 12$

$b = 36$

$gcd = \cancel{1} \cancel{2} 2$

$gcd = \cancel{1}\ 2$

$j = \cancel{\emptyset} 2$ $1 \leq 12$

$\boxed{2 \leq 12}$ ✓

$12 \% 2 == 0$ ✓ $36 \% 2 == 0$

$f = 2$ ✓ $f = 3$