

Ques $1/P_{61}$
 $\hookrightarrow 2$
 $\hookrightarrow 3$
 $\hookrightarrow 4$
 $\hookrightarrow 5$

\Rightarrow

$Q/P \downarrow$
 $12345 \Rightarrow 54321$
 \downarrow

$$1 \times 10 + 2 = 12 \times 10 + 3 = 123 \times 10 + 4 = 1234 \times 10 + 5$$

$\xrightarrow{\text{onum}}$
 $\xrightarrow{\quad}$

num = 54321

$$\begin{aligned} 5 \times 10 + 4 &= 54 \times 10 + 8 = 543 \times 10 + 2 \\ &= 5432 \times 10 + 1 \\ &= 54321 \end{aligned}$$

```
public class Solution {
```

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    int i=1;
    int onum = 0;
    while(i<=n){
        int digit = scn.nextInt();
        onum = onum*10+digit;
        i++;
    }
    System.out.println(onum);
    int rnum = 0;
    while(onum>0){
        int rem = onum %10;
        rnum = rnum*10+rem;
        onum /=10;
    }
    System.out.println(rnum);
}
```

```
/* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
```

Ques Armstrong number:-
 $n = (153)$ # of digit = 3

$$= 1^3 + 5^3 + 3^3 = 1 + 125 + 27$$

$$\# = 153$$

- ↳ find digits
- ↳ Do power operation
- ↳ sum operation - (num)
- ↳ if $num == onum$
 - ↳ true (Armstrong)
 - ↳ false (It is not)

```

int n = scn.nextInt();
int i=1;
while(i<=n){
    ✓ int onum = scn.nextInt();
    ✓ int countDigits = countNoDigits(onum);
    ✓ boolean ans = armstrong(onum, countDigits);
    ✓ System.out.println(ans);
    i++;
}

public static int countNoDigits(int val){
    ✓ int count=0;

    while(val>0){
        count++;
        val /=10;
    }

    ✓ return count;
}

public static boolean armstrong(int val, int noOfDigits){
    ✓ int sum =0;
    ✓ int temp=val;
    while(val>0){
        ✓ int rem = val%10;
        ✓ sum += Math.pow(rem, noOfDigits);
        val /=10;
    }

    ✓ return sum == temp;
}
    
```

onum 153 ✓

153

153

armstrong =

153

3

main

return sum == temp; true

$$[153 == 153]$$

$$\text{Sum} == \text{temp}$$

val = 153 153 + 0
 # of digits = 3
 Sum = 0 + 27 = 27 + 125 = 152 + 1
 temp = 153
 rem = 3 5 1
 = 153

onum = 153
 countDigits = 3
 ans = true

true

Ques val = 1234567

↓
5671234

int lastdigit = val % 1000; 567
int first4digits = val / 1000 = 1234

$567 \times 10000 + 1234$

$5670000 + 1234$
 $= 5671234$
Ans

```
public static void main(String[] args) {  
  
    Scanner scn = new Scanner(System.in);  
    int n = scn.nextInt();  
    int i = 1;  
    while(i <= n){  
        int onum = scn.nextInt();  
        int last3Digits = onum % 1000;  
        int first4Digits = onum / 1000;  
        int ans = last3Digits * 10000 + first4Digits;  
        System.out.println(ans);  
        i++;  
    }  
    /* Enter your code here. Read input from STDIN. Print output to :  
}
```

Ques GCD

25, 35 = 5
largest common factor

i = 2 to 40 ✓
if (a % i == 0 && b % i == 0)
common factor = i

40, 20 =
1, 2, 4, 5, 8, 10, 20, 40
1, 2, 4, 5, 10, 20
⇒ Ans GCD = 20

(40, 20)

public class Solution {

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    int i = 1;
    while(i <= n){
        int a = scn.nextInt();
        int b = scn.nextInt();
        int ans = GCD(a, b); 20
        System.out.println(ans);
        i++;
    }
}
```

/* Enter your code here. Read input from STDIN. Print output to STDOUT. Your GCD

public static int GCD(int a, int b){

```
int ans = 1;
int max = Math.max(a, b);
for(int i = 2; i <= max; i++){
    if(a % i == 0 && b % i == 0){
        ans = i;
    }
}
```

return ans; 20

20

main

<p>a = 40 b = 20 ans = 1 2 4 5 10 20 max = 40</p>	<p>20 i = 2 3 4 5 6 10</p>
<p>a = 40 b = 20 ans = 20</p>	<p>20</p>

Q. 4 $n = 27$ ✓
↳ Prime $\begin{cases} \text{Yes} \\ \text{No} \end{cases}$ $2 \leftrightarrow 26$

✓ Suelto con

```
for ( i = 2 ; i < n ; i++ ) {  
    if ( n % i == 0 ) {  
        System.out.println("No");  
    }  
    else {  
        sys("Yes");  
    }  
}
```

```
public static void main(String[] args) {
```

```
    Scanner scn = new Scanner(System.in);
```

```
    int n = scn.nextInt();
```

```
    int i=1;
```

val = 9

```
    while(i<=n){
```

```
        int val = scn.nextInt();
```

```
        ✓ boolean ans = isPrime(val);
```

```
        ✓ if(ans){
```

```
            System.out.println("Yes");
```

```
        } else{
```

```
            System.out.println("No");
```

```
        }
```

```
        i++;
```

```
    }
```

```
    /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your cl:
```

```
}
```

No

```
public static boolean isPrime(int val){
```

```
    boolean ans = true;
```

```
    for(int i =2; i<val; i++){
```

```
        if(val%i==0){
```

```
            ans = false;
```

```
            break;
```

```
        }
```

```
    }
```

```
    return ans;
```

```
}
```

9

isPrime

main

*val = 9
ans = false
i = 2 3*

*val = 9
ans = false*

false