



# Integers Come In All Sizes ★

52/115 challenges solved

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Problem

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Editorial

Integers in Python can be as big as the bytes in your machine's memory. There is no limit in size as there is:  $2^{31} - 1$  (c++ int) or  $2^{63} - 1$  (C++ long long int).

As we know, the result of  $a^b$  grows really fast with increasing  $b$ .

Let's do some calculations on very large integers.

## Task

Read four numbers,  $a$ ,  $b$ ,  $c$ , and  $d$ , and print the result of  $a^b + c^d$ .

## Input Format

Integers  $a$ ,  $b$ ,  $c$ , and  $d$  are given on four separate lines, respectively.

## Constraints

$$1 \leq a \leq 1000$$

$$1 \leq b \leq 1000$$

$$1 \leq c \leq 1000$$

$$1 \leq d \leq 1000$$

## Output Format

Print the result of  $a^b + c^d$  on one line.

## Sample Input

```
9
29
7
27
```

## Sample Output

```
4710194409608608369201743232
```

**Note:** This result is bigger than  $2^{63} - 1$ . Hence, it won't fit in the long long int of C++ or a 64-bit integer.

Change Theme

Python 3



```
1 if __name__ == '__main__':
2     a = int(input())
3     b = int(input())
4     c = int(input())
5     d = int(input())
6
7     result = a**b + c**d
```

```
8  
9 print(result)  
10
```

Line: 10 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

You have earned 10.00 points!

52/115 challenges solved.

45%



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### ✓ Test case 0

### ✓ Test case 1

Compiler Message

Success

Input (stdin)

```
1 9  
2 29  
3 7  
4 27
```

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Expected Output

```
1 4710194409608608369201743232
```

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