



Your Day 17: More Exceptions submission got 30.00 points.

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Day 17: More Exceptions

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Problem

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Objective

Yesterday's challenge taught you to manage exceptional situations by using *try* and *catch* blocks. In today's challenge, you're going to practice throwing and propagating an exception. Check out the [Tutorial](#) tab for learning materials and an instructional video!

Task

Write a *Calculator* class with a single method: *int power(int,int)*. The *power* method takes two integers, *n* and *p*, as parameters and returns the integer result of n^p . If either *n* or *p* is negative, then the method must throw an exception with the message: *n and p should be non-negative*.

Note: Do not use an access modifier (e.g.: *public*) in the declaration for your *Calculator* class.

Input Format

Input from stdin is handled for you by the locked stub code in your editor. The first line contains an integer, *T*, the number of test cases. Each of the *T* subsequent lines describes a test case in 2 space-separated integers denoting *n* and *p*, respectively.

Constraints

- No Test Case will result in overflow for correctly written code.

Output Format

Output to stdout is handled for you by the locked stub code in your editor. There are *T* lines of output, where each line contains the result of n^p as calculated by your *Calculator* class' *power* method.

Sample Input

```
4
3 5
2 4
-1 -2
-1 3
```

Sample Output

```
243
16
n and p should be non-negative
n and p should be non-negative
```

Explanation

T = 4

*T*₀: 3 and 5 are positive, so *power* returns the result of 3^5 , which is 243.

*T*₁: 2 and 4 are positive, so *power* returns the result of 2^4 , which is 16.



*T*₂: Both inputs (−1 and −2) are negative, so *power* throws an exception and *n and p should be non-negative* is printed.

T₃: One of the inputs (**-1**) is negative, so *power* throws an exception and **n and p should be non-negative** is printed.

Submissions: 6136

Max Score: 30

Difficulty: Easy

[More](#)Current Buffer (saved locally, editable)  Python 2   

```
1  #Write your code here
2  class Calculator:
3      def power(self,a,b):
4          if a>=0 and b>=0:
5              c=a**b
6              return c
7          else:
8              Exception=(a*b<0)
9              e='n and p should be non-negative'
10             return e
11
13  myCalculator=Calculator()
14  T=int(raw_input())
15  for i in range(T):
16      n,p = map(int, raw_input().split())
17      try:
18          ans=myCalculator.power(n,p)
19          print ans
20      except Exception,e:
21          print e
22
```

Line: 8 Col: 28

 Upload Code as File☐ Test against custom input

Run Code

Submit Code

Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #1

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