Day 17: Exceptions!

Welcome to Day 17! Learn how to use try-catch blocks in Day 16 and how to create your own exceptions in Day 17 or just jump right into the problem.

Create a class *Calculator* which consists of a single method *power(int,int)*. This method takes two integers, n and p, as parameters and finds n^p. If either n or p is negative, then the method must throw an exception which says *"n and p should be non-negative"*.

Code for handling Input/Output is already provided in the editor. Please read the partially completed code in the editor and complete it.

Note: The class *Calculator* mustn't be public.

No need to worry about constraints, there won't be any overflow if your code is correct.

If you enjoyed this challenge, here's a java only Exception Challenge

Input Format

First line contains *T*, the number of test cases. Next *T* lines contain two integers *n* and *p* separated by a space.

Output Format

Output T lines. For each test case if n and p are positive then print n^p else print *"n and p should be non-negative"* without quotes.

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
In the first test case both integers are positive hence the output is 3^5=243
In the second test case both integers are positive hence the output is 2^4=16
In the third test case both the integers are negative hence the output is *"n and p should be non-negative"*
In the fourth test case *n* is negative hence the output is *"n and p should be non-negative"*