Problem 50: Pow(x, n)

Problem Information

Difficulty: Medium
Acceptance Rate: 37.87%
Paid Only: No
Tags: Math, Recursion

Problem Description

Implement [pow(x, n)](http://www.cplusplus.com/reference/valarray/pow/), which calculates `x` raised to the power `n` (i.e., `xn`).

Example 1:

Input: x = 2.00000, n = 10 **Output:** 1024.00000

Example 2:

Input: x = 2.10000, n = 3 **Output:** 9.26100

Example 3:

Input: x = 2.00000, n = -2 **Output:** 0.25000 **Explanation:** 2-2 = 1/22 = 1/4 = 0.25

Constraints:

* `-100.0 < x < 100.0` * `-231 <= n <= 231-1` * `n` is an integer. * Either `x` is not zero or `n > 0`. * `-104 <= xn <= 104`

Code Snippets

C++:

```
class Solution {
public:
double myPow(double x, int n) {

}
};
```

Java:

```
class Solution {
public double myPow(double x, int n) {

}
}
```

Python3:

```
class Solution:
def myPow(self, x: float, n: int) -> float:
```