# $50. \text{ Pow}(\mathbf{x}, \mathbf{n})$

Implement pow(x, n), which calculates x raised to the power n (i.e.,  $x^n$ ).

# 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:** 
$$2^{-2} = 1/2^{-2} = 1/4 = 0.25$$

# **Constraints:**

$$-100.0 < x < 100.0$$

$$-2^{\boxed{31}} <= n <= 2^{\boxed{31}} -1$$

n is an integer.

Either x is not zero or n > 0.

$$-10^{4} <= x^{1} <= 10^{4}$$