
Power

Given two positive integers x and n , find and print the value of x^n . You are **NOT** allowed to use the inbuilt function `Math.pow()` for this functionality. The challenge is to compute the result in $O(\log n)$ time.

Hint: Use recursion

Input:

- The values of x followed by the value of n , separated by new line, where $1 \leq x, n \leq 100$
- Use the values as integers, do not use them as a float or double, calculate the result in an integer as well. Do not make use of floating-point values or decimal values.

Output:

- The value of x raised to the power of n , i.e, x^n
- The output values are guaranteed to be valid 32-bit integers, do not worry about not being able to hold the result in an integer type variable.

Sample:

No.	Sample Input	Sample Output	Explanation
1	3 2	9	$3^2 = 9$
2	5 5	3125	$5^5 = 3125$
3	2 10	1024	$2^{10} = 1024$