MITx: 6.00.1x Introduction to Computer Science and Programming Using Python

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## L5 PROBLEM 2 (5 points possible)

In Problem 1, we computed an exponential by iteratively executing successive multiplications. We can use the same idea, but in a recursive function.

Write a function [recurPower(base, exp)] which computes  $base^{exp}$  by recursively calling itself to solve a smaller version of the same problem, and then multiplying the result by [base] to solve the initial problem.

This function should take in two values - base can be a float or an integer; exp will be an integer  $\geq 0$ . It should return one numerical value. Your code must be recursive - use of the \*\* operator or looping constructs is not allowed.

```
def recurPower(base, exp):
'''
base: int or float.
exp: int >= 0
returns: int or float, base^exp
'''
# Your code here
```

## Unanswered

Note: In programming there are many ways to solve a problem. For your code to check correctly here, though, you must write your recursive function such that you make a recursive call directly to the function recurPower. Thank you for understanding.

## Hints

What should your base case be?

Thinking about recursion

Check

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