"Recursion (Think Like a Programmer)" at *https://youtu.be/oKndim5-G94*. Wikipedia's article on recursion goes into great detail at *https://en.wikipedia.org/wiki/Recursion*.

You can install the ShowCallStack module for Python. This module adds a `showcallstack()` function that you can place anywhere in your code to see the state of the call stack at that particular point in your program. You can download the module and find instructions for it at *https://pypi.org/project/ShowCallStack*.

Practice Questions

Test your comprehension by answering the following questions:

1. In general, what is a recursive thing?
2. In programming, what is a recursive function?
3. What four features do functions have?
4. What is a stack?
5. What are the terms for adding and removing values to the top of a stack?
6. Say you push the letter *J* to a stack, then push the letter *Q*, then pop the stack, then push the letter *K*, then pop the stack again. What does the stack look like?
7. What is pushed and popped onto the call stack?
8. What causes a stack overflow to happen?
9. What is a base case?
10. What is a recursive case?
11. How many base cases and recursive cases do recursive functions have?
12. What happens if a recursive function has zero base cases?
13. What happens if a recursive function has zero recursive cases?