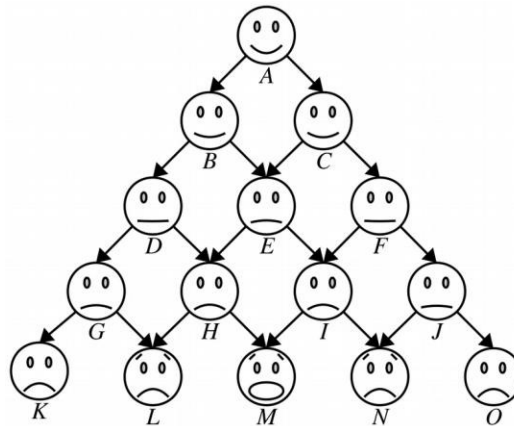


DSC 430: Python Programming  
Assignment 0402: Human Pyramid



A human pyramid is a way of stacking people vertically in a triangle. Except for the people in the bottom row, each person splits their weight evenly on the two people below them in the pyramid. For example, in the pyramid above, person A splits her weight across people B and C, and person H splits his weight – plus the accumulated weight of the people he is supporting – onto people L and M. It can be mighty uncomfortable to be in the bottom row, since you will have a lot of weight on your back! In this assignment, you will explore just how much weight that is. Let us assume that everyone in the pyramid weighs exactly 128 pounds.

Write a recursive function – **def humanPyramid(row, column):** – that takes as input the row and column number of a person in a human pyramid, then returns the total weight on that person's back. The row and column are each zero-indexed, so the person at row 0, column 0 is on top of the pyramid, and person M in the above picture is at row 4, column 2.

	0	1	2	3	4
0	A				
1	B	C			
2	D	E	F		
3	G	H	I	J	
4	K	L	M	N	O

Your implementation of humanPyramid must be implemented **recursively** and must **not** use any loops. You may be surprised how little code is required!

Ensure to provide a sufficient amount of documentation/comments in the code. Points of particular importance are:

- What is the base case of your recursive function?
- Does everyone in the bottom row carry the same weight? Why or why not? If not, are there any that carry the same weight?

**Submission:** Submit the source file (.ipynb) and the exported html file (.html) to the D2L. Do not zip or archive the file. Your code must include comments at the top including your name, assignment number, and the honor statement, “I have not given or received any unauthorized assistance on this assignment.” Also, each function must include a docstring.