Quiz 3

Name: _____
NetID: _____

Problem:
Implement a method `modifiedFibonacci(PositionList<Integer> list, int n)` that calculates the n-th "modified Fibonacci number," defined by the following recursive relationship:

$$f(n) = f(n-1) + f(n-2) \times \text{list.getAtIndex}(n),$$

with base cases

$$f(1) = f(2) = 1.$$

Your method must be:

- Recursive and efficient.
- Based on position-based traversal of the list.
- You may **not** transfer the elements of the list into an array to make `list.getAtIndex` efficient.