P5. Step Function

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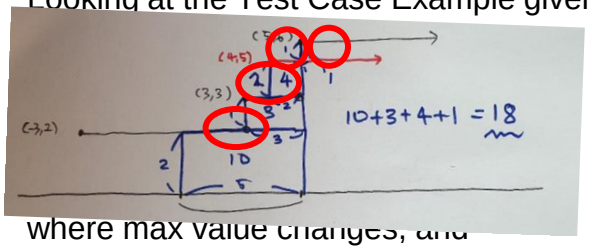
문제 분석

There are TWO step functions, f and g. Each step function is consisted of Kf, Kg number of sequences, respectively. Since it is a step function, sequence n's x and y values are always smaller than sequence n+1's x and y values.
Finding the sum expression of max of two functions within the range of p and q is the goal.

문제 풀이

Looking at the Test Case Example given, we can graphically describe the function's answer as below:



where max value changes, and

result a solution.

Instead of getting the solution by adding vertically,

horizontally. Starting from p, find the max-function

max-function value of p until q. Go to the next point

and get the remainder area. Repeating until q will

(Not forgetting mod 10007).

문제 풀이 분석

Several conditions exist to solve this way. if the mx-function value at point p is 0, the p must be moved (to the right) until it is

not 0. Also, since the values can exceed max value of 'int', assigning to something bigger than 'int' is necessary.
Since the box has to be created every time the max-function value changes,
the time complexity of this will result O(Kf + Kg).
Space complexity must be O(Kf + Kg) as well, in order to hold all values of coordinates of function f and g.

Discussion