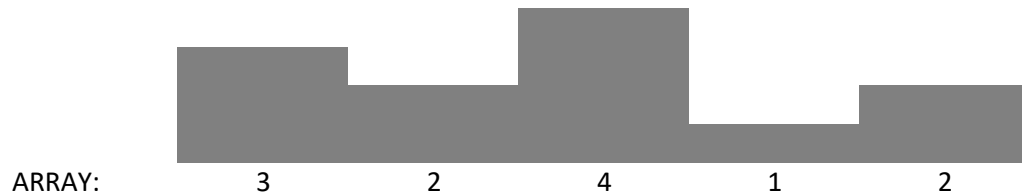


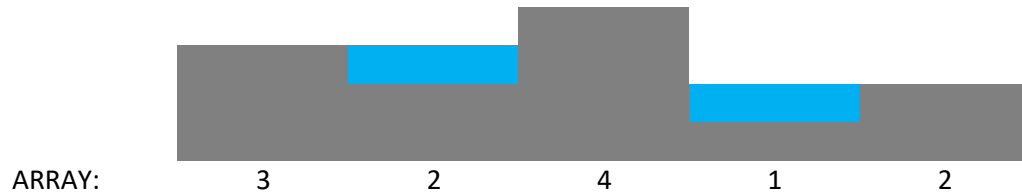
INPUT: array of integer numbers

OUTPUT: a number, further called "volume"

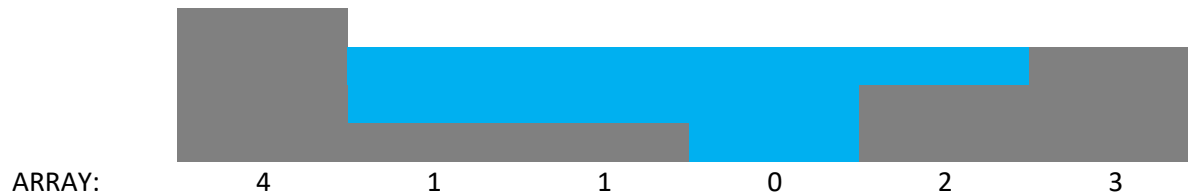
Imagine that the array describes profile of a surface, for example:



Now imagine that there was a heavy rain, and all possible "holes" are filled with water. In this case, we have volume == 2 units of water:



Another example, here we have volume == 8 units of water:



TASK:

Write an application which takes an array as an input, and calculates the volume of water which remained after the rain, in units.

Make a statement on complexity of your solution (time and memory).

Acceptable programming languages are Python / Java / C++.

We evaluate in particular:

- * accuracy of the solution
- * quality of code
- * breath and depth of the knowledge in programming concepts