The answer to this task is based on binary system. Each bottle gets a binary number, and each adventurer also gets a number and drinks from the bottles where the bit is 1. For example, the first adventurer drinks from the bottles where the first bit is 1, and the second adventurer where the second bit is 2. The next day, by seeing which adventurers got muted, we can reconstruct the number of bottle from binary system.

a) In the worst case scenario, 9 adventurers are muted. As 10 bits represent 1024 bottles and we have only 1000, there will be always at least one adventurer who can speak.

b) Let's assume the special bottle number is 123. All adventurers drink according to the rules. The next day, adventurers 1,2,4,5,6,7 lose their voice, and adventurers 3,8,9,10 don't. So we reconstruct 0001111011, which is 123 in decimal system. Total number of adventurers that will drink from the special bottle in this case is 6.