# Coding interview question - counting matches

Write the method *countMatches* which receives an array of numerical values and a search string, and returns the number of values from the list that match the search string.  
  
The search string could have one of the following patterns:

* “n” e.g. “5” - match only the exact value “n”
* “a-b” e.g. “3-8” - match values in the range a and b (including)
* “a,b,...n” e.g. “3,5,8” - match any of the values in the comma separated list
* Any combination of range and comma separated values  
  e.g. “3-5,7-9,12”

Examples:

var list = [5,4,3,1,9,5,9,6,3];

countMatches(list, “5”) will return 2

countMatches(list, “3-8”) will return 6

countMatches(list, “3,5,8”) will return 4  
countMatches(list, “3-5,7-9,12”) will return 8

Extra question: how would you change your solution if you knew that the values list is very long (100000 values) and that multiple searches will be applied on the same list?  
What other considerations will need to be taken to decide on the most efficient solution?

Expected time: 30-45 minutes