Quiz4

* Required

1. Name *

2. Email *

3. Regno *

4. Section *

Quiz Questions

5. Here is a brute-force algorithm that uses0(1) additional space—iterate through A of length n,testing if A[i] equals A[i + 1], and, if so,shift all elements at and after i+ 2 to the leftby one. When all entries are equal, the number of shifts is * 2 points

Mark only one oval.

- n times
- n * n times
- Square root of n
- n /2 times

6. For the given example, (2,3,5,5,7,11,11,11,13), when processing the A[3], since we already have a 5 (which we know by comparing A[3] with A[2]), we advance to A[4], Since this is a new value, we move it to the first vacant entry, namely A[3]. Now the array is (2,3,5,7,7,11,11,11,13), and the first vacant entry is A[4]. We continue from A[5], What is the time complexity and space complexity is ? 2 points

7. We can improve runtime by sieving p's multiples from p2 instead of p where the size of Array of length is 2 points

Mark only one oval.

- ◯ n-1
- ◯ n*n/2
- ◯ (int)Math.floor(0.5 * (n - 3)) + 1;

8. For example, to apply (3,1,2,0), we begin with the first entry, 3. We move A[0]to A[3], first saving the original A[3], We update the permutation to (-1,1, 2, 0). We move A[3] to A[0], Since P[0]is negative we know we are done with the cycle starting at 0. We also update the permutation to (-1,1, 2,-4).Write the code for the above example. 5 points

9. Based on the text above question.what is the time complexity and space complexity * 1 point

Google Forms