#15 Days of Coding Challenge
#Day 14

Count primes

#Leetcode 204

Solution:

```cpp
class Solution {
public:
    int countPrimes(int n) {
        vector<int> a(n , 1);

        for(long i = 2; i < n  ; i++){

            if(a[i] == 1){

                for(long j = i*i; j < n ; j+=i){
                    if(a[j] == 1) a[j] = 0;
                }
            }
            else{continue; }
        }

        int cnt = 0;
        for(int k = 2; k < n; k++){
            if(a[k] == 1) cnt++;
        }
        return cnt;
    }
};
```

Time Complexity: O(n log log n)
Space Complexity: O(n)