

QUE 1

```
var input_array = getProgramInputs();
```

```
var arr = input_array.map(Number);
```

```
let numSet = new Set(arr);
```

```
let maxNum = Math.max(...arr);
```

```
// check from 0 to maxNum
```

```
for (let i = 0; i <= maxNum; i++) {
```

```
  if (!numSet.has(i)) {
```

```
    console.log(i);
```

```
    return;
```

```
  }
```

```
}
```

```
// if nothing missing in between, then last number is missing
```

```
console.log(maxNum + 1);
```

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```
// Input is automatically provided
```

```
var input_array = getProgramInputs();
```

```
var str = String(input_array[0]);
```

```
function lengthOfLongestSubstring(s) {
```

```
  let charIndexMap = {};
```

```
  let start = 0;
```

```
  let maxLength = 0;
```

```
for (let end = 0; end < s.length; end++) {  
  let currentChar = s[end];  
  
  // If character already seen and inside current window  
  if (charIndexMap[currentChar] >= start) {  
    start = charIndexMap[currentChar] + 1;  
  }  
  
  // Update character index  
  charIndexMap[currentChar] = end;  
  
  // Update maximum length  
  maxLength = Math.max(maxLength, end - start + 1);  
}  
  
return maxLength;  
}  
  
// Print result  
console.log(lengthOfLongestSubstring(str));
```