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Test Name:	Progress - Software Engineer Intern - Technical Assessment
Taken On:	9 May 2023 00:15:34 EEST
Time Taken:	93 min 1 sec/ 95 min
Personal Email Address:	b1j2d3a4r@gmail.com
Invited by:	Verina
Invited on:	4 May 2023 12:29:09 EEST
Skills Score:	Aptitude 10/15
	Git (Basic) 5/5
	Problem Solving (Advanced) 5/5
Tags Score:	Algebra 5/5
	Algorithms 50/200
	Aptitude 10/15
	C# 15.83/20
	C++ 5/15
	CSS 5/10
	Classes 5/5
	Compilers 5/5
	Complexity 5/5
	Core CS 5/10
	Data Structures 5/5
	Easy 85/200 Git 5/5
	Javascript 20/20
	Logic 0/5
	Medium 10.83/70
	Principles 5/5
	Security 5/10
	Series 5/5
	Unit Testing 2.5/5
	coding 5/5

44.8%

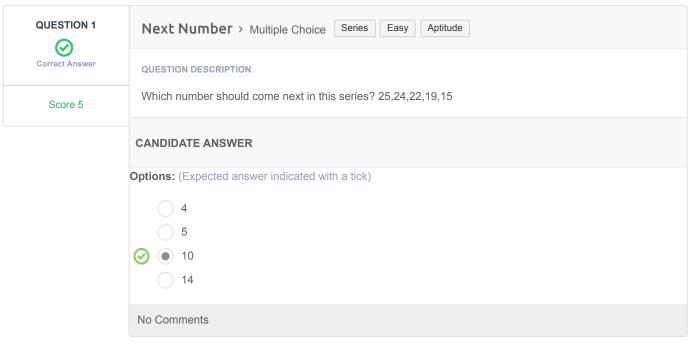
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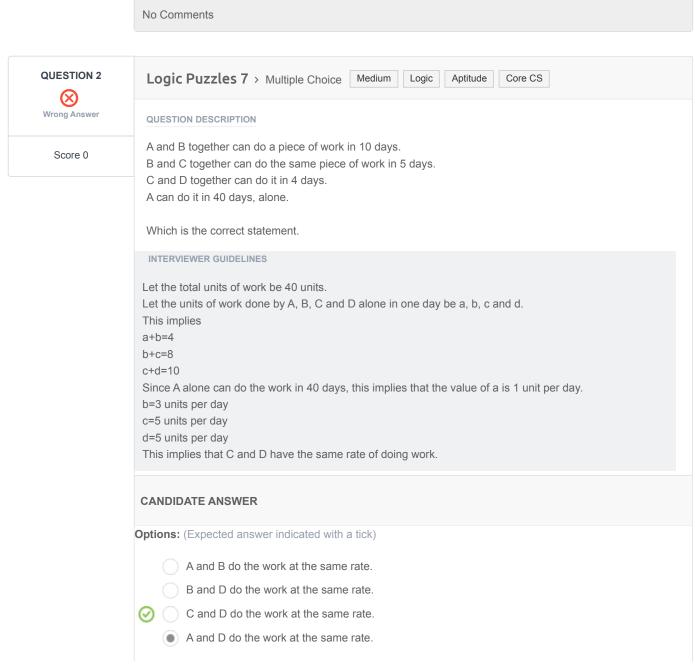
scored in Progress - Software Engineer Intern - Technical Assessment in 93 min 1 sec on 9 May 2023 00:15:34 EEST

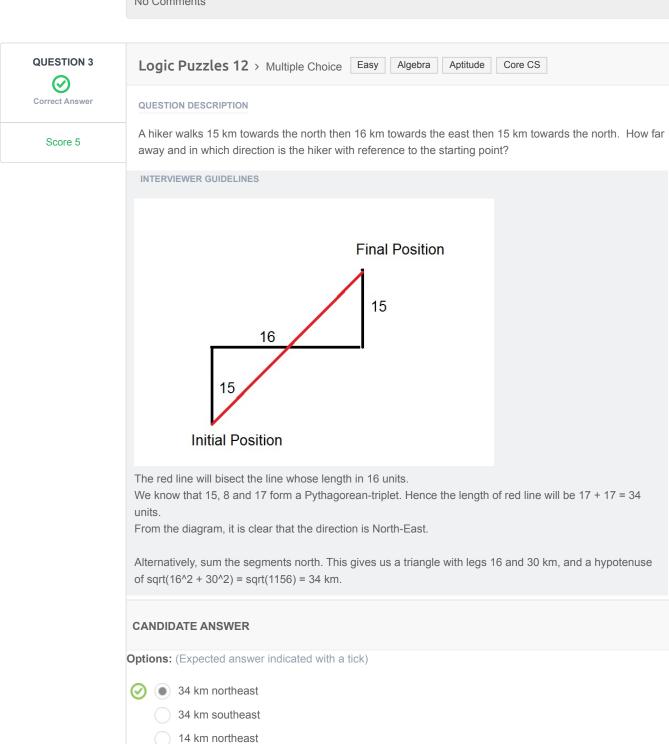
**Recruiter/Team Comments:** 

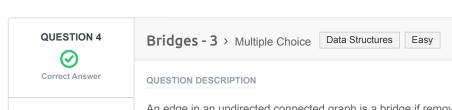
No Comments.

	Question Description	Time Taken	Score	Status
Q1	Next Number > Multiple Choice	17 sec	5/ 5	<b>Ø</b>
Q2	Logic Puzzles 7 > Multiple Choice	12 min 56 sec	0/ 5	$\otimes$
Q3	Logic Puzzles 12 > Multiple Choice	3 min 41 sec	5/ 5	<b>Ø</b>
Q4	Bridges - 3 > Multiple Choice	3 min 44 sec	5/ 5	<b>②</b>
Q5	Complexity Task > Multiple Choice	3 min 15 sec	5/ 5	<b>Ø</b>
Q6	Principles > Multiple Choice	1 min 35 sec	5/ 5	<b>Ø</b>
Q7	Code problem > Multiple Choice	31 sec	5/ 5	$\odot$
Q8	Compilers > Multiple Choice	37 sec	5/ 5	<b>Ø</b>
Q9	Unit Tests > Multiple Choice	32 sec	2.5/ 5	<b>⊘</b>
Q10	git status > Multiple Choice	1 min 43 sec	5/ 5	<b>Ø</b>
Q11	Classes difference > Multiple Choice	1 min 28 sec	5/ 5	<b>Ø</b>
Q12	JavaScript Task3 > Multiple Choice	24 sec	5/ 5	<b>Ø</b>
Q13	JavaScript Task1 > Multiple Choice	1 min 47 sec	5/ 5	<b>Ø</b>
Q14	JavaScript Task2 > Multiple Choice	22 sec	5/ 5	<b>Ø</b>
Q15	JavaScript Task4 > Multiple Choice	8 sec	5/ 5	<b>Ø</b>
Q16	Security SSL/TLS > Multiple Choice	53 sec	0/5	$\otimes$
Q17	Security HTTPS > Multiple Choice	11 sec	5/ 5	<b>Ø</b>
Q18	CSS Task1 > Multiple Choice	1 min 14 sec	5/ 5	<b>Ø</b>
Q19	CSS Task2 > Multiple Choice	27 sec	0/5	$\otimes$
Q20	C++ References > Multiple Choice	1 min 2 sec	0/5	$\otimes$
Q21	C++ Virtual functions > Multiple Choice	15 sec	0/5	$\otimes$
Q22	C++ Template > Multiple Choice	56 sec	5/ 5	<b>②</b>
Q23	C# Generic > Multiple Choice	15 sec	3.33/ 5	<b>Ø</b>
Q24	C# Async > Multiple Choice	11 sec	2.5/ 5	<b>Ø</b>
Q25	C# Base class > Multiple Choice	29 sec	5/ 5	<b>②</b>
Q26	C# Operator > Multiple Choice	1 min 53 sec	5/ 5	<b>②</b>
Q27	Password Vallidation > Coding	19 min 18 sec	10/ 50	<b>Ø</b>
Q28	Biggest group > Coding	18 min 34 sec	40/ 50	<b>⊘</b>
Q29	Sum comparisons > Coding	41 sec	0/ 50	$\Theta$
Q30	Summing > Coding	11 min 55 sec	0/ 50	$\otimes$
20				







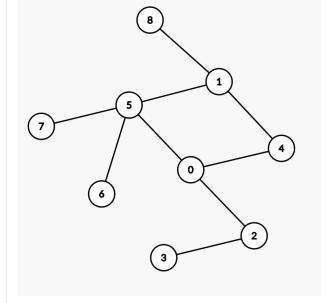


14 km southeast

No Comments

An edge in an undirected connected graph is a bridge if removing it disconnects the graph. How many bridges are in the following graph?

Score 5



### INTERVIEWER GUIDELINES

An edge in an undirected connected graph is a bridge iff removing it disconnects the graph.

- 7-5
- 5-6
- 1-8
- 2-3
- 0-2

### **CANDIDATE ANSWER**

Options: (Expected answer indicated with a tick)

7

No Comments

## **QUESTION 5**



Correct Answer

Score 5

# 

## QUESTION DESCRIPTION

What is the time complexity of the following function?

```
int fun(int n)
 int count = 0;
 for (int i = n; i > 0; i /= 2)
 for (int j = 0; j < i; j++)
      count += 1;
```

return count;
}
CANDIDATE ANSWER
Options: (Expected answer indicated with a tick)
O(n)
O(log n)
O(n2)
No Comments
Principles > Multiple Choice Principles
QUESTION DESCRIPTION
Which principle suggests "High-level modules should not depend on low-level modules. Both should depend on abstraction. Abstractions should not depend on details. Details should depend on abstractions."
CANDIDATE ANSWER
Options: (Expected answer indicated with a tick)
Dependency Inversion principle
Inversion of Control principle
Interface segregation principle
Liskov substitution principle
No Comments
Code problem > Multiple Choice coding
QUESTION DESCRIPTION
What will be the output of the following code?
for (var $x = 1; x < 5; x++)$
console.log(x);
CANDIDATE ANSWER

QUESTION 6

Correct Answer

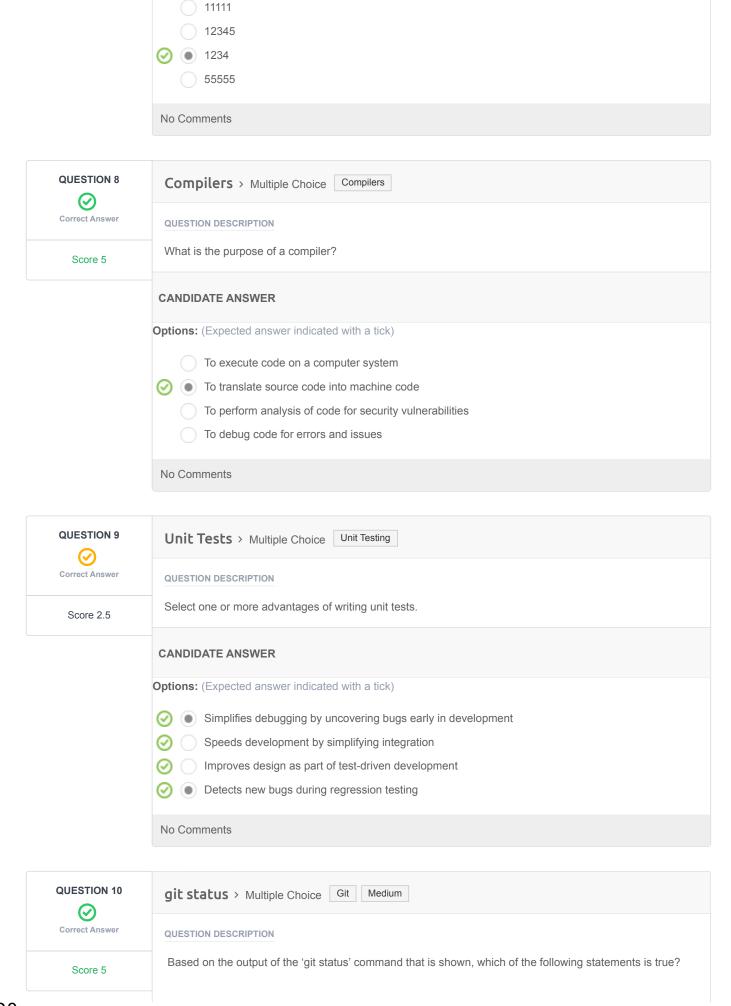
Score 5

QUESTION 7

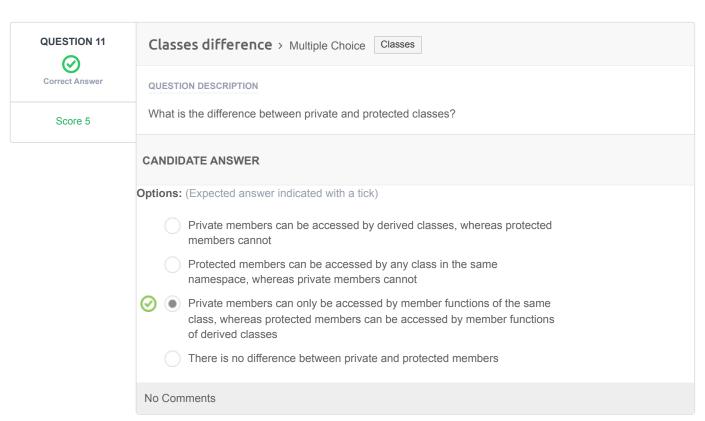
Correct Answer

Score 5

Options: (Expected answer indicated with a tick)



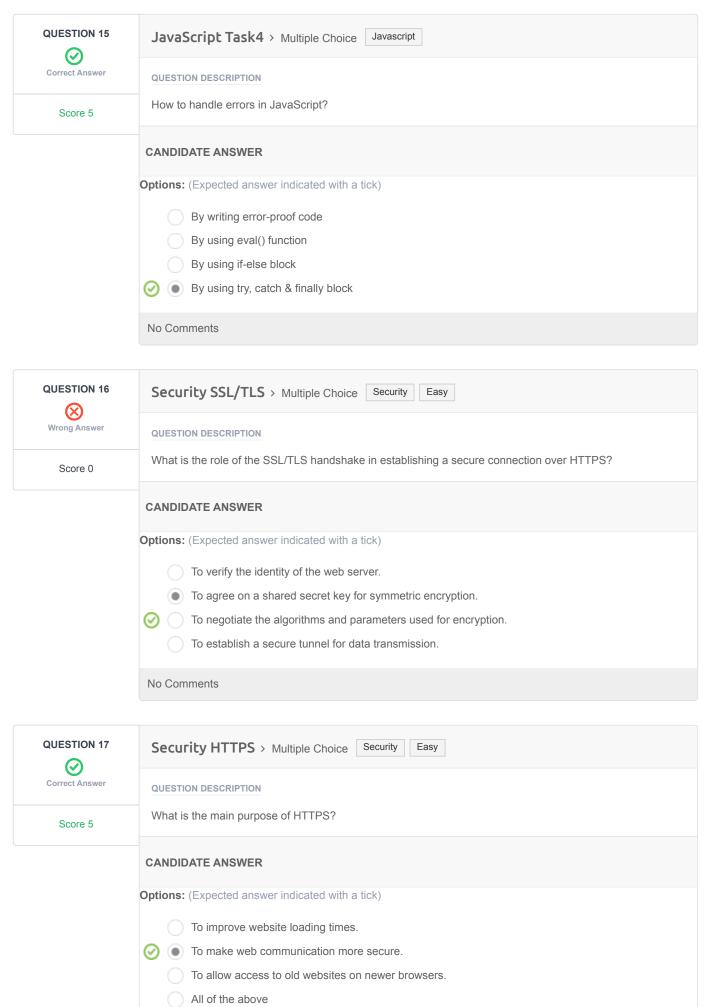
```
git status
   On branch newbranch
   Changes to be committed:
     (use "git reset HEAD <file>..." to unstage)
                          README.md
            modified:
   Changes not staged for commit:
     (use "git add <file>..." to update what will be committed)
     (use "git checkout -- <file>..." to discard changes in working directory)
                          README.md
CANDIDATE ANSWER
Options: (Expected answer indicated with a tick)
        There are 2 files with the name README.md.
        'git reset --soft HEAD~' was executed and the last commit added the
        REAMDE.md file.
    `git reset --mixed HEAD~` was executed and the last commit added the
        REAMDE.md file.
    git reset --hard HEAD~` was executed and the last commit added the
        REAMDE.md file.
    (a) 'git add README.md' was executed and then another change was made
        to the README.md file.
 No Comments
```

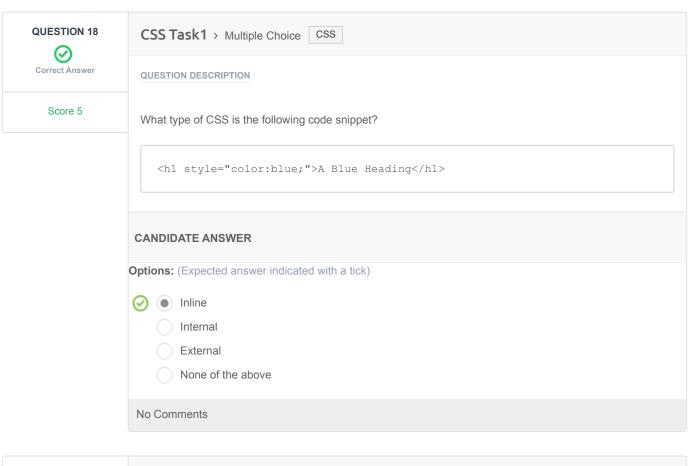


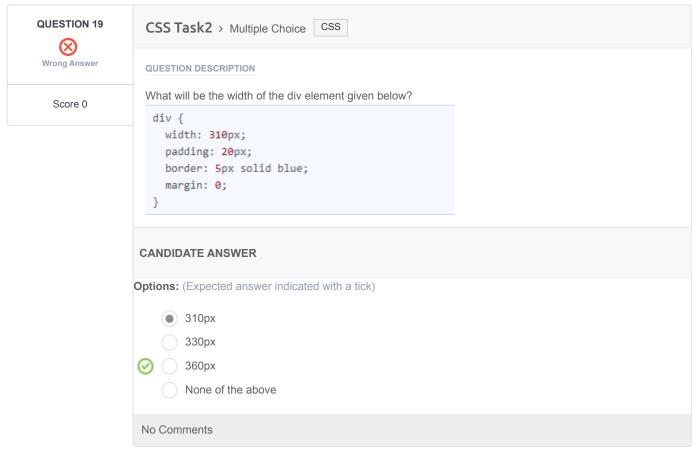
**QUESTION 12** 

JavaScript Task3 > Multiple Choice | Javascript

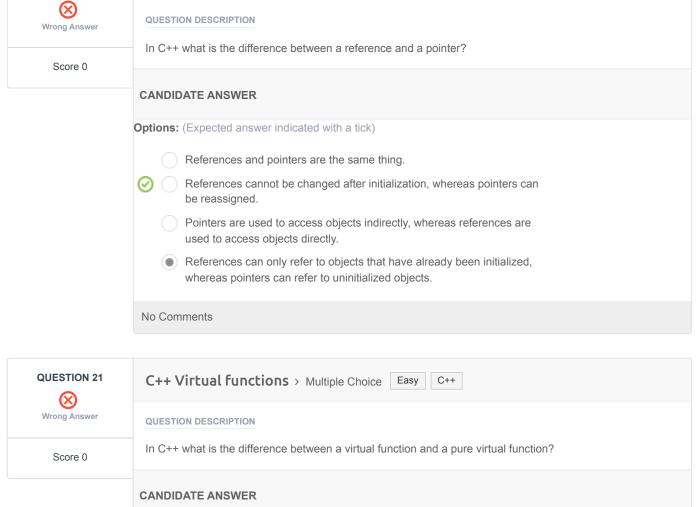
Correct Answer	QUESTION DESCRIPTION				
Score 5	In JavaScript which of the following is NOT the correct way to declare an array?				
	CANDIDATE ANSWER				
	Options: (Expected answer indicated with a tick)				
	var arr = [1, "two", 3];				
	var arr = new Array();				
	✓ var[] arr = new Number()[5];				
	None of the above				
	No Comments				
QUESTION 13	JavaScript Task1 > Multiple Choice Javascript				
Correct Answer	QUESTION DESCRIPTION				
Score 5	In JavaScript which of the following is NOT a correctly defined object?				
	CANDIDATE ANSWER				
	Options: (Expected answer indicated with a tick)				
	var obj = {};				
	var obj = {name: "Steve"};				
	var obj = {name = "Steve"};				
	var obj = new Object();				
	No Comments				
QUESTION 14	JavaScript Task2 > Multiple Choice Javascript				
Correct Answer	QUESTION DESCRIPTION				
Score 5	In JavaScript what is the meaning of "null"?				
	CANDIDATE ANSWER				
	Options: (Expected answer indicated with a tick)				
	Null means empty string value				
	Null means absence of value				
	Null means unknown value				
	Null means zero value				
	No Comments				

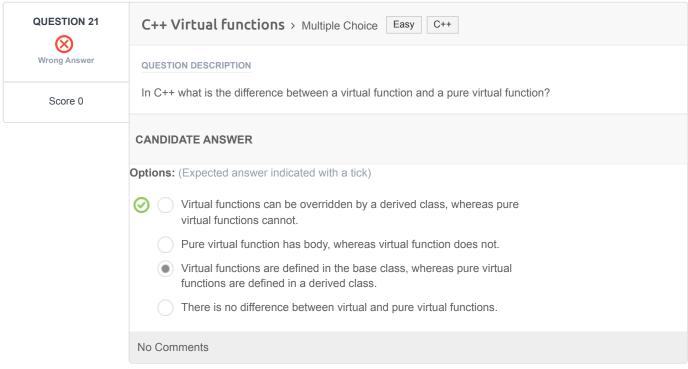


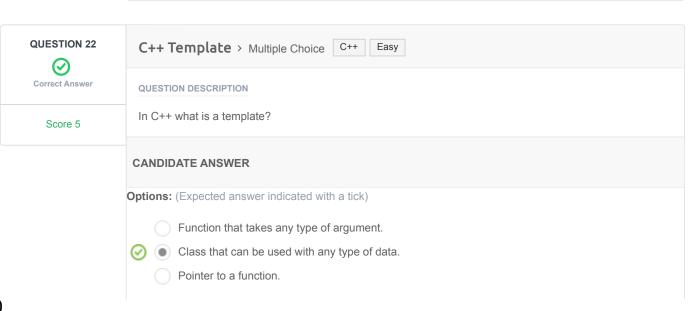


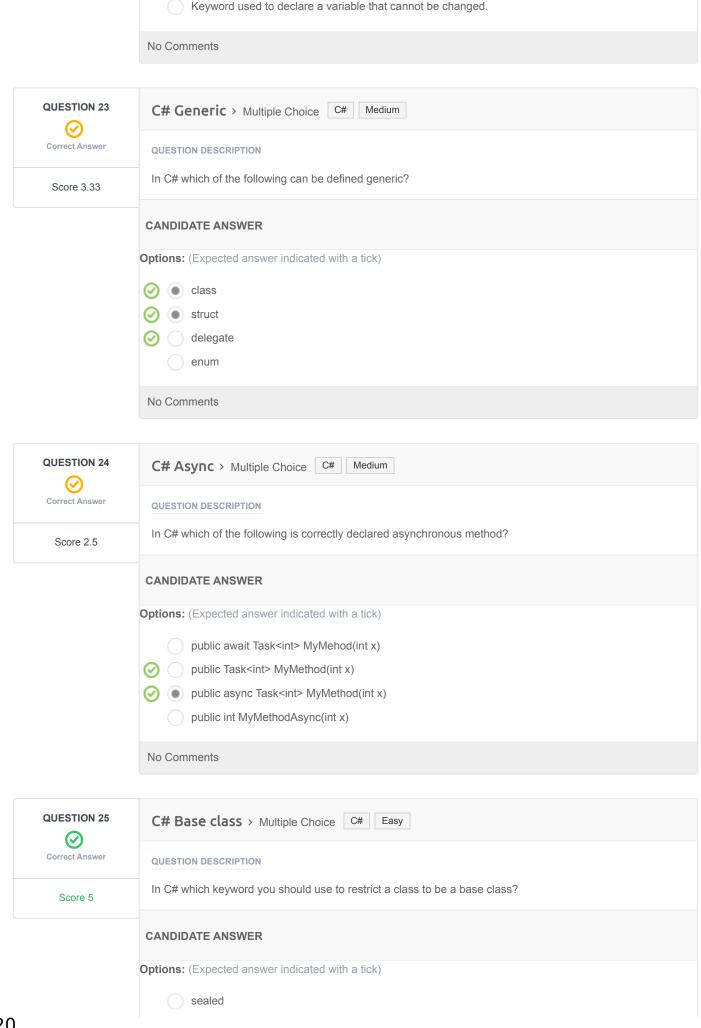


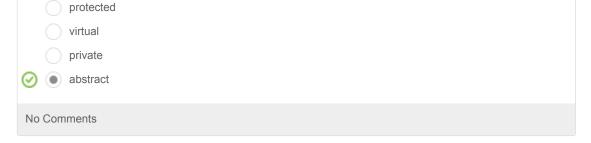
QUESTION 20 C++ References > Multiple Choice C++ Easy

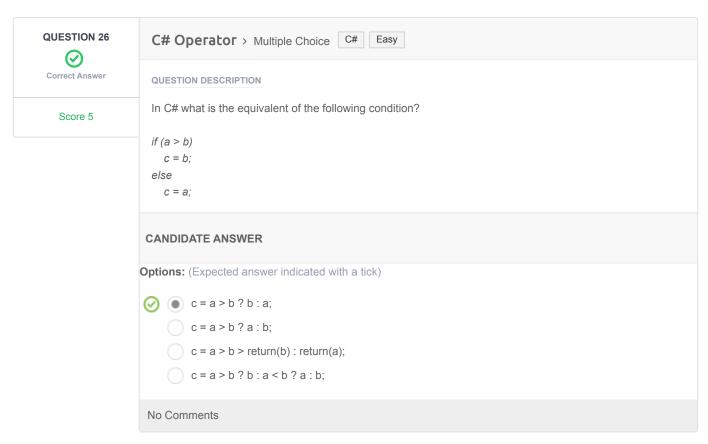


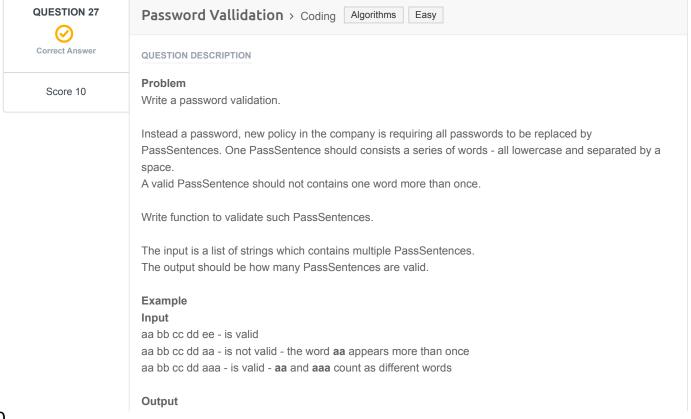












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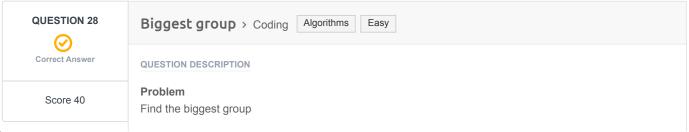
### **CANDIDATE ANSWER**

Language used: JavaScript (Node.js)

```
1 /*
2 * Complete the 'ValidatePassSentences' function below.
 4 * The function is expected to return an INTEGER.
   * The function accepts STRING ARRAY input as parameter.
6 */
8 function ValidatePassSentences(input) {
     const words = new Set();
     let i = 0;
     for (let word of words) {
14
      const dumi = word.split(' ')
        const wordSet = new Set(words);
         if (wordSet.size !== words.length) {
             continue;
       if (sentenceSet.has(sentence)) {
continue;
         }
         i++
         sentenceSet.add(sentence);
     }
     return i;
29 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USE
Sample Testcase 1	Easy	Sample case	⊗ Wrong Answer	0	0.0694 sec	38.4 KB
Sample Testcase 2	Easy	Sample case	Wrong Answer	0	0.0615 sec	38.7 KB
Testcase 1	Easy	Hidden case	Wrong Answer	0	0.0671 sec	38.5 KB
Testcase 2	Easy	Hidden case	Wrong Answer	0	0.054 sec	38.4 KB
Testcase 3	Medium	Hidden case	⊗ Wrong Answer	0	0.0746 sec	38.6 KB
Testcase 4	Medium	Hidden case	Success	10	0.0807 sec	38.3 KB
Testcase 5	Hard	Hidden case	⊗ Wrong Answer	0	0.0599 sec	38.6 KB

No Comments



You have groups of numbers and you should decide which one is the biggest one. The size of the group is the **Sum** of the numbers in that group.

The Input is list of string, each number is on a new line. Groups are separated by empty line. What is the size of the biggest group?

```
Example
```

Input

1000

2000

3000

4000

5000

6000

7000

8000

9000

10000

The sizes of the groups are:

First Group - 6000

Second Group - 4000

Third Group – 11000

Fourth Group - 24000

Fifth Group - 10000

The biggest group is the Fourth Group, because 24000 is the biggest one.

## Output

2400

### **CANDIDATE ANSWER**

Language used: JavaScript (Node.js)

```
2 /*
  * Complete the 'Q2' function below.
4
  * The function is expected to return an INTEGER.
* The function accepts STRING ARRAY input as parameter.
8
9 function Q2(input) {
    let maxSum = 0;
    let sum = 0;
    for(let i =0; i < input.length; i++) {</pre>
     if (input[i] === ""){
           if(sum > maxSum) {
                maxSum = sum;
            }
             sum = 0;
         }
         else{
             let nums = input[i].split("\n");
```

```
for (let j = 0; j < nums.length; <math>j++) {
                    sum += parseInt(nums[j])
      }
       return maxSum;
29 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Sample Testcase 0	Easy	Sample case	Success	0	0.0839 sec	38.7 KB
Testcase 1	Medium	Hidden case	Success	10	0.0639 sec	38.7 KB
Sample Testcase 1	Easy	Sample case	Success	0	0.0471 sec	38.6 KB
Testcase 2	Medium	Hidden case	Success	10	0.0849 sec	38.7 KB
Testcase 3	Medium	Hidden case	Wrong Answer	0	0.0535 sec	38.4 KB
Testcase 4	Hard	Hidden case	Success	10	0.064 sec	38.3 KB
Testcase 6	Hard	Hidden case		10	0.0927 sec	38.5 KB

No Comments





Score 0

# Sum comparisons > Coding | Algorithms

Medium

#### **QUESTION DESCRIPTION**

## **Problem**

Compare sums of different groups of numbers

You have a list of integers. You should determine, how many times the sum of group of 3 consecutive numbers is larger than the sum of the previous group of 3 consecutive numbers. Input is a list of integers.

Output is a number, which contains how many times the sum of 3 consecutive numbers is larger than the sum of the previous 3 consecutive numbers.

## **Example**

### Input

199

200

208

210

200 207

240

269

260

263

With Alphabet numbers are marked which 3 numbers are forming a group

199	Α			
200	А	В		
208	А	В	С	

210		В	С	D
200	Е		С	D
207	Е	F		D
240	Е	F	G	
269		F	G	Н
260			G	Н
263				Н

SUM A: 607 (N/A - no previous sum)

SUM B: 618 (increased)

SUM C: 618 (no change)

SUM D: 617 (decreased)

SUM E: 647 (increased)

SUM F: 716 (increased)

SUM G: 769 (increased)

SUM H: 792 (increased)

There are 5 times, when the sum of 3 numbers is larger than the sum of the previous 3 numbers.

### Output

### **CANDIDATE ANSWER**



1 This candidate has not answered this question.

No Comments





Wrong Answer

Score 0

## Summing > Coding Easy Algorithms

### QUESTION DESCRIPTION

#### **Problem**

Determine the difference between the largest value and the smallest value in list of numbers.

What is the sum of all differences?

The input is list of strings. On each row there are multiple integers, separated by empty space.

The output should be the sum of the differences on each row.

## Example

## Input

5195

7533

2468

The first row's largest and smallest values are 9 and 1, and their difference is 8.

The second row's largest and smallest values are 7 and 3, and their difference is 4.

The third row's difference is 6.

In this example, the the result would be 8 + 4 + 6 = 18.

### Output

### **CANDIDATE ANSWER**

Language used: JavaScript (Node.js)

```
2 /*
   * Complete the 'Q1' function below.
    * The function is expected to return an INTEGER.
   * The function accepts STRING ARRAY input as parameter.
 8
 9 function Q1(input) {
     const rows = input.split("\n");
     let sum = 0;
    for(let i =0;i < rows.length; i++) {</pre>
14
      const nums = rows[i].split(" ").map(num => parseInt(num));
         const maxNum = Math.max(...nums);
         const minNum = Math.min(...num);
         const difference = maxNum - minNum;
         sum +=difference;
      return
21 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Sample Testcase 1	Easy	Sample case	Runtime Error	0	0.0433 sec	39.1 KB
Testcase 1	Easy	Hidden case	Runtime Error	0	0.0639 sec	39 KB
Sample Testcase	Easy	Sample case	Runtime Error	0	0.0557 sec	39.2 KB
Testcase 2	Medium	Hidden case	Runtime Error	0	0.0522 sec	39 KB
Testcase 3	Medium	Hidden case	Runtime Error	0	0.0672 sec	39.1 KB
Testcase 4	Hard	Hidden case	Runtime Error	0	0.1087 sec	39.2 KB
Testcase 5	Hard	Hidden case	Runtime Error	0	0.0745 sec	39.1 KB

No Comments

## **QUESTION 31**



Score 0

# Specify your preferred stack or framework > Subjective

#### **QUESTION DESCRIPTION**

Please, specify your preferred coding language(s), stack(s) or framework(s).

C# and .NET family - Blazor, WPF/ WinUI, ASP.NET Core MVC C++, Java

JavaScript stack (Angular, React or jQuery) along with Node.js

C	CANDIDATE ANSWER	
	JavaScript along with node.js	
1	No Comments	

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