

() 09m: 08s to section end



# ☆ Properties of Data Structures



We perform the following sequence of actions:

- 1. Insert the following elements into a set: 1, 2, 9, 1, 2, 3, 1, 4, 1, 5, 7.
- 2. Convert the set into a list and sort it in ascending order.

Select the option below that denotes the sorted list:

1

Pick one of the choices

- 3 **(1, 2, 3, 4, 5, 7, 9)**
- **(9, 7, 5, 4, 3, 2, 1)** 4
  - **1** {1, 1, 1, 1, 2, 2, 3, 4, 5, 7, 9}
- 5 None of the above.
  - Clear selection

6

7

### 8

## 

9 There are several factors that affect the efficiency of lookup operations in a hash table.

Which of the following is **NOT** one of those factors? 10

11

Pick one of the choices 12

Number of elements stored in the hash table - Extra Credit -

Size of elements stored in the hash table

- Number of buckets in the hash table
- Quality of the hash function

Clear selection



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 $\equiv$ Consider the following code snippet: 8 int a = 1; while (a < n) { - Coding a = a \* 2;Section -1 What is the complexity of the above code snippet? Pick one of the choices - Test -O(n) 3 O(1) 4  $\bigcirc$  O(log<sub>2</sub>(n)) O(2<sup>n</sup>) 5 Clear selection 6 7 ☆ Worst-case Running Time 8 9 Which of the following sorting algorithms does not have a worst case running time of O(n<sup>2</sup>) 10 11 Pick one of the choices 12 insertion sort - Extra Credit -

merge sort

quick sort

bubble sortClear selection

8

9

10

11

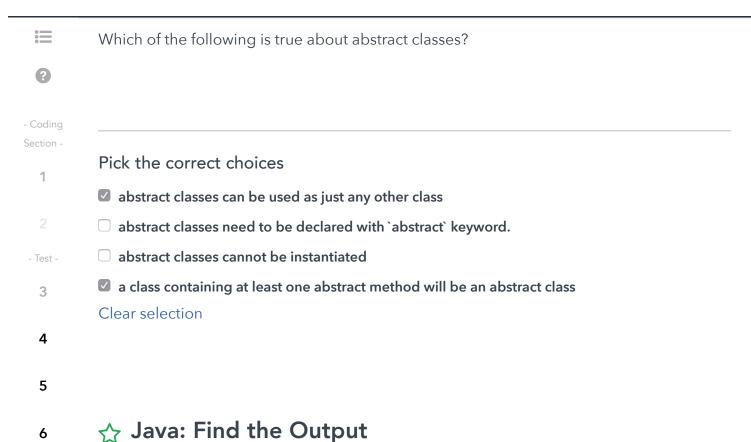
12

- Extra Credit -



Developer I v2

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**7** Consider the following Java code snippet:

```
public int divide(int a, int b) {
   int c = -1;

   try {
      c = a / b;
   }
   catch (Exception e) {
      System.err.print("Exception ");
   }
   finally {
      System.err.println("Finally ");
   }

   return c;
}
```

What will our code print when we call divide(4, 0)?

Pick one of the choices



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:=	Exception			
_	○ Finally			
3	O No output			
	○ -1			
- Coding Section -	Clear selection			
1				
2	☆ REST Securely			
- Test				
3	Identify any and all rule(s) to follow when securing a web application based on REST			
	architecture:			
4				
5				
3	Pick the correct choices			
6	Sensitive data such as usernames and passwords must always be passed to a web service			
7	using the POST method			
	☐ A web service must not use any HTTP error messages			
8	All input validations must be done on the server			
	☐ Validate malformed XML/JSON			
9	☐ PUT operations must be read-only			
10	Clear selection			
10				
11				
	☆ First Five Alerts			
12				
Extra Credit -	Select the option that has the correct sequence of first five alert messages, when the			
13	following javascript code snippet is run:			
	function func(x) {			
	var z = 8;			
	return function(y) {			

alert(x + y + z);



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```
var n1 = new Number(32);
 \equiv
           var a1 = func(n1);
 3
           var n2 = new Number(16);
           var a2 = func(n2);
- Coding
           var n3 = new Number(8);
           var a3 = func(n3);
           var n4 = new Number(4);
  1
           var a4 = func(n4);
           var n5 = new Number(2);
           var a5 = func(n5);
- Test -
            a1(2);
 3
           a2(4);
           a3(8);
 4
           a4(16);
           a5(32);
 5
          Pick one of the choices
 6
          34, 36, 40, 48, 64
 7
          2, 4, 8, 16, 32
          24, 24, 28, 28, 42
 8
          42, 28, 24, 28, 42
          Clear selection
 9
```

10

11

# ☆ Multiple Choice

12

- Extra Credit -

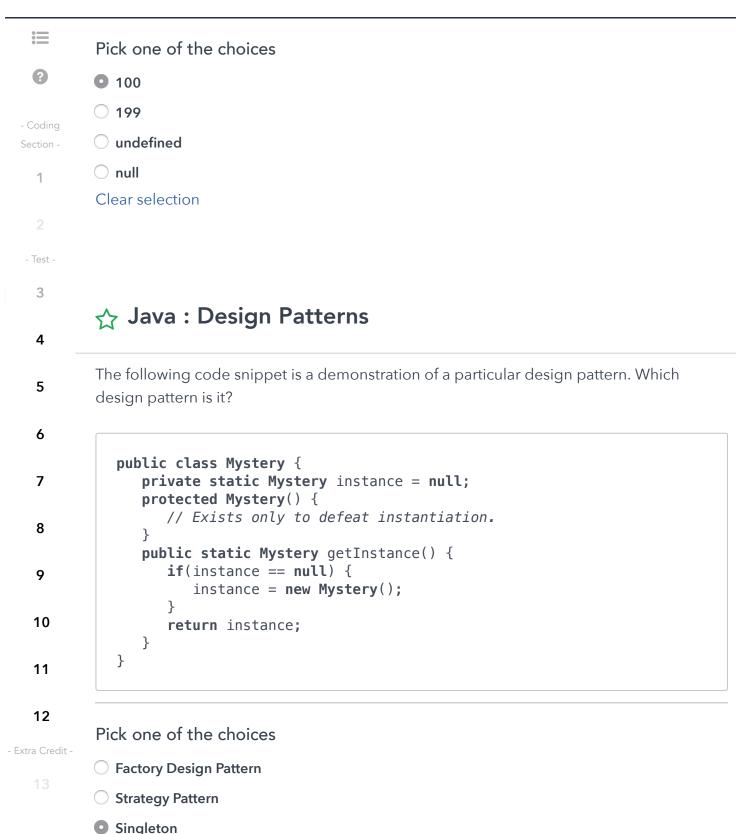
Consider the following code. What would the line console.log(x) display below?

```
var x = 100;

function test() {
    if(false) {
        var x = 199;
    }
    console.log(x); //what does this log?
}
```



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Clear selection

Facade Design Pattern



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:=			
?	About Priva	cy Policy Te	Terms of Service
- Coding Section -			
1			
2			
- Test -			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
- Extra Credit -	t-		
13			