

# Q5 (weeks 1-5)

⚠ This is a preview of the published version of the quiz

Started: Apr 5 at 9:27am

## Quiz Instructions



### Question 1

0.2 pts

When implementing an object to be used like a Python set, what special method is necessary?

- ☐ `__in__`
- ☐ `__contains__`
- ☐ `__getitem__`
- ☐ `__lookup__`
- ☐ `__find__`
- ☐ `__brackets__`



### Question 2

0.2 pts

Suppose two distinct methods are called in the following snippet:

```
obj1.drive(obj2)
obj3.drive(obj4)
```

What do you infer about the types involved?

- ☐ `obj1` and `obj2` are different types

- ☐ obj1 and obj3 are different types
- ☐ obj2 and obj4 have the same type
- ☐ obj2 and obj4 are different types

**Question 3****0.2 pts**

If you forget to use a visited set when writing code for DFS, what might happen when searching a graph with cycles?

- ☐ the code could run forever
- ☐ it might return False (no path found) even though a path to the destination exists
- ☐ there could be an exception
- ☐ it might return True (path found) even though no path to the destination exists

**Question 4****0.2 pts**

How many children could a node in a binary tree possibly have? Check all that apply.

- ☐ 3
- ☐ 2
- ☐ 0
- ☐ 4
- ☐ 1

**Question 5****0.2 pts**

Which statement is TRUE?

- ☐ every non-leaf in a binary tree has exactly 2 children
- ☐ every BST is a binary tree
- ☐ every directed graph is also a DAG
- ☐ every non-root in a binary tree has exactly two parents

Not saved

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