Discussion

<u>Help</u>

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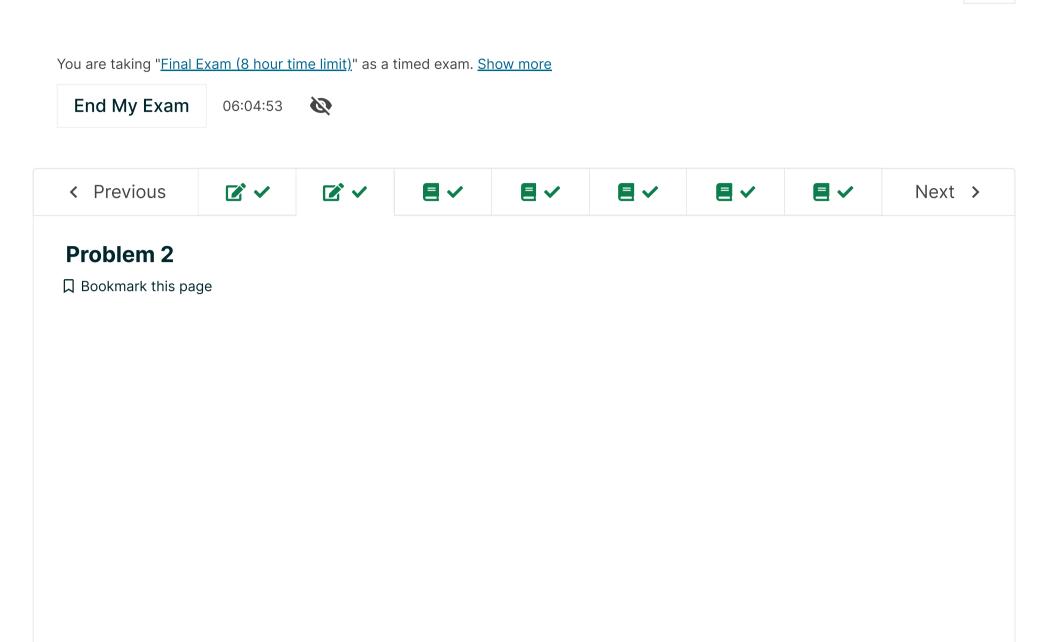
★ Course / Final Exam / Final Exam (8 hour time limit)

<u>Dates</u>

<u>Course</u>

<u>Progress</u>

()



<u>Notes</u>

<u>Calendar</u>

Final Exam due Oct 26, 2022 07:30 +08 Completed

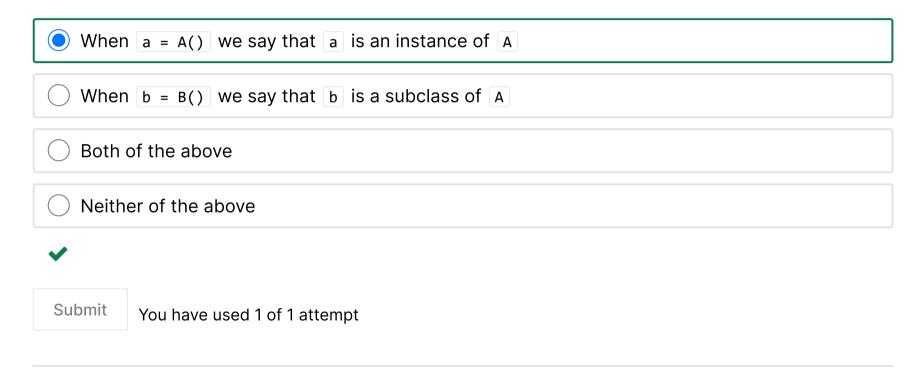
Problem 2-1

1/1 point (graded)

You have the following class hierarchy:

```
class A(object):
    def foo(self):
        print('hi')
class B(A):
    def foo(self):
        print('bye')
```

Which of the following is correct?



Problem 2-2

0/1 point (graded)

Consider the function f below. What is its Big O complexity?

```
def f(n):
    def g(m):
        m = 0
        for i in range(m):
            print(m)
    for i in range(n):
        g(n)
```

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|-------|--|--|--|
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| O (1) | | | |

```
\bigcirc \ O\left(log\left(n
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ight)
```

```
\bigcirc O(n)
```

```
leftondown O\left(n^2
ight)
```

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You have used 1 of 1 attempt

Problem 2-3

1/1 point (graded)

A dictionary is an immutable object because its keys are immutable.

○ True

False because its keys can be mutable

False because a dictionary is mutable



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You have used 1 of 1 attempt

Problem 2-4

1/1 point (graded)

Consider the following two functions and select the correct choice below:

```
def foo_one(n):
    """ Assume n is an int >= 0 """
    answer = 1.0
    while n > 1:
        answer *= n
        n -= 1
    return answer

def foo_two(n):
    """ Assume n is an int >= 0 """
    if n <= 1:
        return 1.0
    else:
        return n*foo_two(n-1)</pre>
```

- The worst case Big Oh time complexity of foo_one is worse than the worst case Big Oh time complexity of foo_two.
- The worst case Big Oh time complexity of foo_two is worse than the worst case Big Oh time complexity of foo_one.
- The worst case Big Oh time complexity of foo_one and foo_two are the same.
- Impossible to compare the worst case Big Oh time complexities of the two functions.



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You have used 1 of 1 attempt

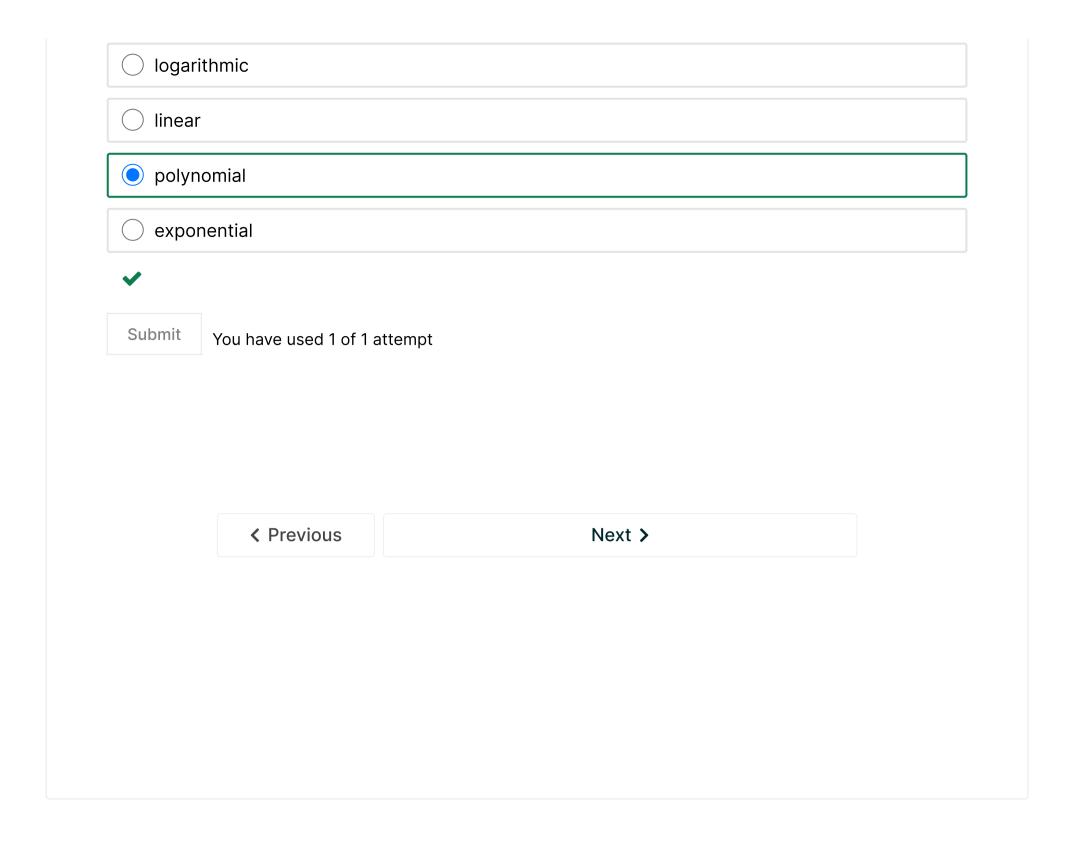
Problem 2-5

1/1 point (graded)

The complexity of $\mathbf{1}^n + n^4 + 4n + 4$ is

() constant





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