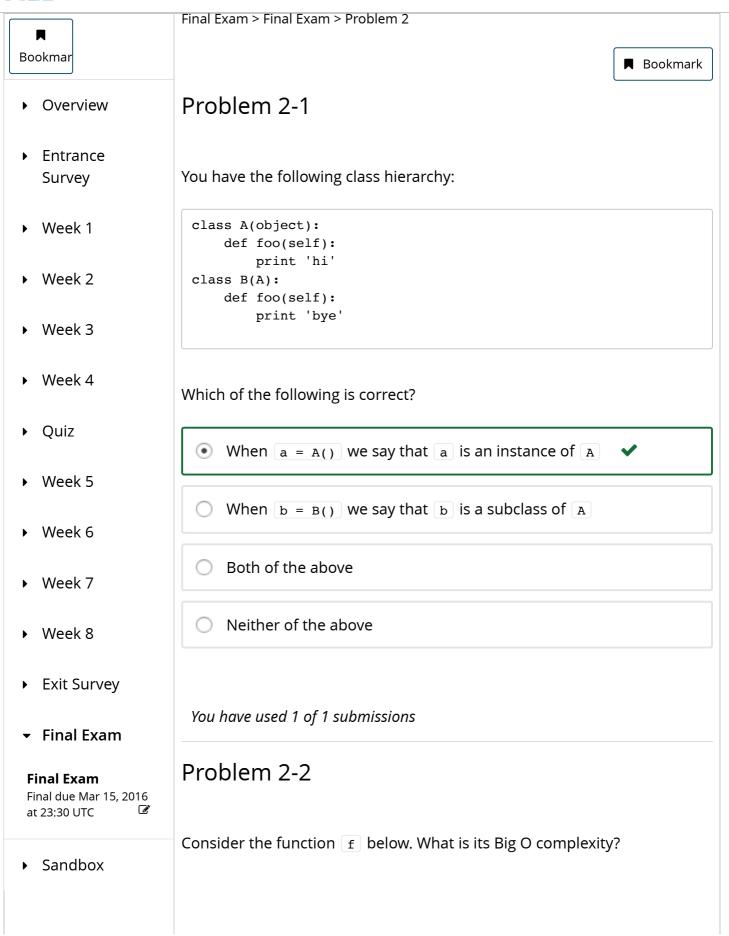


MITx: 6.00.1x Introduction to Computer Science and Programming Using ...

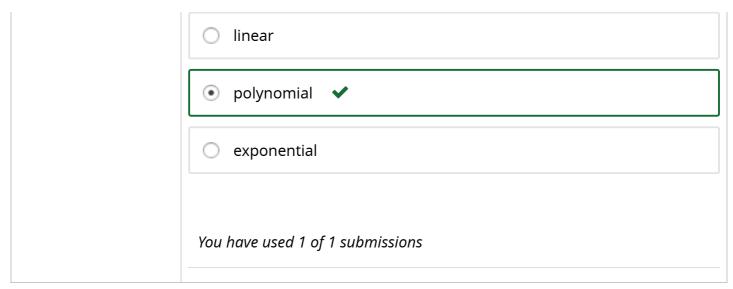


<pre>def f(n): def g(m): m = 0 for i in range(m): print m</pre>
for i in range(n): g(n)
O O(1)
$\bigcirc \ O(log(n))$
O O(n)
\odot $O(n^2)$ $lacktriangledown$
You have used 1 of 1 submissions
Problem 2-3
A dictionary is an immutable object because its keys are immutable.
O True
O False because its keys can be mutable
False because a dictionary is mutable
You have used 1 of 1 submissions
Problem 2-4
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)
 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.
 You have used 1 of 1 submissions
Problem 2-5
The complexity of \mathbf{1}^n + n^4 + 4n + 4 is
     constant
 logarithmic
```



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