

**MITx:** 6.00.1x Introduction to Computer Science and Programming Using Python

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# Problem 4

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## Problem 4-1

1/1 point (graded)

Consider the following Python procedure. Specify its order of growth.

```
def modten(n):
    return n%10

O(1) 
▼ ✓
```

Submit

You have used 1 of 1 attempt

#### Problem 4-2

1/1 point (graded)

Consider the following Python procedure. Specify its order of growth.

```
def multlist(m, n):
    ""
    m is the multiplication factor
    n is a list.
    ""
    result = []
    for i in range(len(n)):
        result.append(m*n[i])
    return result
```

O(len(n))



Submit

You have used 1 of 1 attempt



## Problem 4-3

0/1 point (graded)

Consider the following Python procedure. Specify its order of growth.

```
def foo(n):
    if n <= 1:
        return 1
    return foo(n/2) + 1</pre>
```



Submit

You have used 1 of 1 attempt

#### Problem 4-4

1/1 point (graded)

Consider the following Python procedure. Specify its order of growth.

```
def recur(n):
    if n <= 0:
        return 1
    else:
        return n*recur(n-1)</pre>
```



Submit

You have used 1 of 1 attempt

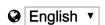
# Problem 4-5

1/1 point (graded)

Consider the following Python procedure. Specify its order of growth.

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