

CSCA08H Winter 2022 Worksheet: List Operations and Methods, Function range

1. Consider this code:

a = [1, 0]

All of the following code fragments cause `a` to refer to [1, 0, 8].

Circle all of the code fragment(s) that create a new list.

- (a) `a.append(8)`      (b) `a = a + [8]`  
(c) `a.insert(len(a), 8)`    (d) `a = [a[0], a[1], 8]`

Circle all of the code fragment(s) that modify the original list.

- (a) `a.append(8)`      (b) `a = a + [8]`  
(c) `a.insert(len(a), 8)`    (d) `a = [a[0], a[1], 8]`

2. Consider this code:

```
a = [1, 0, 8]  
b = a.sort()
```

After the code above is executed, which of the following expressions evaluate to **True**? Circle those expression(s).

- (a)  $a == [1, 0, 8]$     (b)  $a == [0, 1, 8]$   
 (c)  $b == [1, 0, 8]$     (d)  $b == [0, 1, 8]$

3. Consider this code

```
a = [0, 1, 2]
b = a
b[2] = 100
```

After the code above is executed, which of the following expressions evaluate to **True**? Circle those expression(s).

- (a) `a == [0, 1, 2]` and `b == [0, 1, 100]`      (b) `a == [0, 1, 2]` and `b == [0, 100, 2]`  
(c) `a == [0, 1, 100]` and `b == [0, 1, 100]`    (d) `id(a) == id(b)`

4. Which of the following code fragments does not print 'na' 12 times? Circle those expression(s).

- |                                           |                                                          |
|-------------------------------------------|----------------------------------------------------------|
| (a) for i in range(12):<br>print('na')    | (b) for i in range(1, 24, 2):<br>print('na')             |
| (c) for i in range(1, 12):<br>print('na') | (d) for i in range(6, 12):<br>print('na')<br>print('na') |