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Homework 2

1)

Results:

12
10
5

Expected Results:

12
12
5

It did a shallow copy, so when you edit A2 it also changed A1.

2)

a) $O(\log(n))$
b) $O(n \log(n))$
c) $O(n)$
d) $O(n^2)$
e) $O(n^2)$
f) $O(1)$

3)

The key difference between `delete []` and `delete` is that `delete []` deletes arrays from the heap. It is mainly used to delete the next item in memory until it deletes the whole array. This is possible, because the array keeps track of its size and the memory is stored consecutively.

4)

a) $O(n)$
b) $O(1)$

5)

a) $O(n)$
b) $O(1)$

6)

a) Function 3
b) Function 2
c) Function 3
d) Function 1

7)

a) lvalue
b) rvalue
c) lvalue
d) rvalue

8) The problem is that it is returning by reference, but the name that is created gets destroyed when the

function finishes.