

CMSC 206: Data Structures

Aliasing

Assume the code below has access to the `Counter` class (available from the course syllabus). Draw a memory diagram as it would be after each snippet of code is run. Consider the snippets to be independent; that is, one does not flow into another.

1. `int a = 5;`
 `int b = 6;`
 `int c = 7;`

2. `int a = 5;`
 `int b = a;`
 `a = 8;`

3. `int a = 5;`
 `int b = a;`
 `b = 8;`

4. `Counter a = new Counter(5);`
 `Counter b = new Counter(6);`
 `a.increment();`

5. `Counter a = new Counter(5);`
 `Counter b = new Counter(5);`
 `a.increment();`

6. Counter a = new Counter(5);
Counter b = a;
a.increment();

7. Counter a = new Counter(5);
Counter b = a;
b.increment();

8. Counter a = new Counter(5);
Counter b = a;
a.increment();
b.increment();

9. Counter a = new Counter(5);
Counter b = a;
a.increment();
b = new Counter(8);
b.increment();

10. Counter a = new Counter(5);
Counter b = a;
a.increment();
a = new Counter(8);
b.increment();