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Midterm CS362 Winter 2019
Question 2:

```
srand(time(NULL)); // Seed ONCE
```

```
void testRemoveAll() {  
  
    //TEST #1  
    //test on empty container  
    container *emptyC = newContainer();  
    //removeAll  
    removeAll(1, emptyC);  
    //asserts  
    assert(get(1, emptyC) == 0);  
    assert(size(emptyC) == 0);  
  
    //TEST #2  
    //test on container that is full of a single number  
    container *repeatingC = newContainer();  
    //fill with one random number  
    int oneRand = random();  
    //because no usage for the container was specified I went with a large boundary  
    for (int i = 0; i < INT32_MAX; ++i) {  
        add(oneRand, repeatingC);  
    }  
    //removeAll  
    removeAll(oneRand, repeatingC);  
    //asserts  
    assert(get(oneRand, repeatingC) == 0);  
    assert(size(repeatingC) == 0);  
  
    //TEST #3  
    //test on a container containing random numbers  
    container *randomC = newContainer();  
    //fill with random numbers  
    for (int i = 0; i < INT32_MAX; ++i) {  
        int rand = random();  
        add(rand, randomC);  
    }  
    //create more random numbers until match is found with get  
    int toRemove = random();  
    while(get(toRemove, randomC) == 0){  
        int toRemove = random();  
    }  
    //this insures that removeAll can best find instances of the number within the container not just  
the edges  
    //removeAll  
    removeAll(toRemove, randomC);  
}
```

```
//asserts  
assert(get(oneRand, repeatingC) == 0);
```

```
}
```