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Homework 3

1) 6  
2  
5  
9  
7

It first print the middle element,  $(c.end() - c.begin())/2$  gave the size of the vector / 2. When added to the beginning it will give the middle element of the array. Then the element at itr2 spot gets deleted and the array gets shifted over to replace it. This means the element in itr1 remains the same (2), because it is the 2<sup>nd</sup> index, while everything after the 4, gets deleted and shifted over. It prints 5,9 instead of 4,8 afterwards. This is evident when you get the middle number again, which turns out to be 7, proving that the vector became one element less.

2)  $O(n)$

3)

```
itrStart = a.begin();  
itrMid = a.begin() + ((a.end() - a.begin())/2);  
itrEnd = a.end();
```

4)

a)4

b)Won't compile, List iterators are only forward iterators, you can't add a value to it. It could only decrement or increment.

c)5

d)Won't compile. The iterator is for a type char of a vector, but the vector that the iterator is from is of type int.