Exercise: Array Checkpoint

A. Why are insertion and deletion at the logical end of an array more efficient than in the interior of an array?

B. Fill in the

Time Complexity for the Array Data Structure (n = number of occupied cells)

Operation	Cost as O ( )
read (anywhere in the array)	
add/remove (at the logical end of the array)	
add/remove (in the interior of the array)	
resize	
find by position	
find by target (element)	

C. What will happen if the following code fragment were to execute?

```
int[] a = new int[50];
a[50] = 13;
```

D. Why would you want to minimize the number of times you have to resize an array?