## **Step 2-Compare the Runs**

Run the code and search for the first, middle, and last items. Based on your observations, construct the following table in a file and save it to show your lab instructor:

	Sequential	Binary
Is the data sorted? (yes or no)	NO	YES
How many comparisons are made to find the first item (index 0)?	1	6
How many comparisons are made to find the middle item (index 49)?	49	1
How many comparisons are made to find the last item (index 99)?	100	7

## **Step 3-Challenge Questions**

Save these questions and your answers to the same file as above.

Suppose your array contained 1,000,000 elements:

1. For a Sequential Search, how many comparisons would the program need to find the last value in the array?

1,000,000

2. For a Binary Search, how many comparisons would the program need to find the last value?

3. In this case, which do you think will be faster?
Binary Search