Exercises

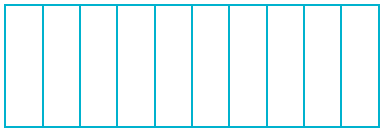
1. For each of the following, declare an array with an appropriate name and type and allocate an appropriate amount of storage.

a. a list of grades for 100 courses
b. A list of 10 names
c. a list of 50 temperatures
d. a list birth years for 25 club members
e. a list of 200 product IDs (product IDs can include digits, letters, and the dash (-))
f. a list that keeps track of the numbers of students in 5 different classes (e.g. class 1 has x students, class 2 has y students, etc)

2. Fill in the elements for the **values[]** array (it has 10 elements) as the following code executes:

```
int counter = 1;
values[0] = 10;
values[counter] = counter;
counter++;
values[5] = counter;
values[9] = values[5] + counter;
values[counter] = values[9] - values[1];
values[9] += ++counter;
```

Array: values[10]



3. Write the code to display the **values[]** array (from the previous exercise) backwards.

4. a. Write a program that uses a char[] array to store the characters in a sentence. Ask the user for a sentence, and then store that string into the char[] array.

b. Modify the above program to do a search/replace for one letter in the char[] array. Ask the user what letter they'd like to replace, and then the letter they'd like to replace it with. After doing the search/replace, display the sentence.