Array Questions

Directions: Only write the bits of code specifically required to complete the tasks specified below. You do not need to create a full working program. If a question asks you to **draw**, please insert a **TABLE** from the Insert menu and label the **index** values **AND** the contents of the vector you've drawn.

1. Declare an array that can hold 5 school names. (1 point)

string schoolNames [] = {"School1", "School2", "School3", "School4", "School5"}

2. Draw a picture of the array you just created, labeling the index values, and showing what each element contains. (1 point)

Index	Value
0	School1
1	School2
2	Schoo3
3	Schoo4
4	School5

3. Describe the relationship between the highest index value and the total number of elements in an array. (2 points)

The highest index value in a list is one less of the total number of elements in the array.

4. Draw the array after the code has executed.(2 points)

```
double a[4];
a[0]=3.4;
a[1]=2 * a[0];
a[2]=a[0] - a[1];
a[3]=5;
a[0]=a[3] + 1;
```

Index	0	1	2	3
Value	6	6.8	-3.4	5

5. What will happen as a result of the following code?(2 points)

```
double a[2];
a[0]=3.4;
a[1]=2*a[0];
a[2]=a[0] - a[1];
a[3] = 5;
a[0] = a[3] + 1;
```

It would crash because now the element size of the list is 2, which means within the code, all of the indexes need to be within 0-1, because we call 2 and 3, it would crash as that's outside the array.

6. Write a for loop that iterates over a 250-element array called myBesties and prints each element on a separate line along with a number. NOTES - The array has already been created and filled. You just need to print the values as shown below. Only one cout line is needed in your loop to complete this. (2 points)

Example:

1. Aria

2. Spencer

3. Hannah

4. Emily

```
string myBesties [250];

  for (int i = 1; i < 251; i++) {
    cout << i << ": " << "Friend " << i << endl;
  }
```