Quiz #5a

CS 211

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Question 1

- A snippet of code is presented below.
  At arrow #1, declare a dynamic array of doubles called readings (use the context of the provided code).
  At arrows 2 & 3, the program is nearly finished executing, write the necessary commands to return the array to the heap and avoid dangling pointers.

```
    int size;
    cout << "How many readings will be recorded? ";
    cin >> size;

1->

    // Program does stuff

2->
3->

return 0;
```

Question 1

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  At arrows 2 & 3, the program is nearly finished executing, write the necessary commands to return the array to the heap and avoid dangling pointers.

```
    int size;
    cout << "How many readings will be recorded? ";
    cin >> size;

1-> double *readings = new double[size];

    // Program does stuff

2-> delete [] readings;
3-> readings = NULL;

return 0;
```

Question 2

- List the three principles of designing recursive algorithms. Descriptions are not necessary.

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  Descriptions are not necessary.
  - No infinite recursion
  - The base case returns the correct value (or does the correct action)
  - If all recursive cases return the correct value (or do the right thing), then the entire function is correct

Question 3

- Define a struct called `Album`. Give it three data members (use at least two different data types)

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-
```
struct Album {
    string artist;
    string title;
    int year;
};
```

Question 4

- Declare an `Album` object and assign values to the data members of the struct (the values don't have to be accurate, but assignments should be correct).

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- ```
  Album blue;
  blue.artist = "Weezer";
  blue.title = "Weezer";
  blue.year = 1994;
  ```
  ```