Array implementation – Study Questions

- Write a public member function `replace` that replaces one occurrence of a given item in the ArrayBag with another passed as an argument. The method should return a boolean to indicate whether the replacement was successful.
- Modify `remove` such that it retains the order of the items in the ArrayBag (it does not swap with the last item)
- Write a public member function `removeRandom` that removes a random element from the ArrayBag. This method should also return a boolean indicating whether an element was actually removed.
- What is an obvious limitation to using and array to implement the Bag ADT?
- Modify `add` so that it no longer allows for duplicates.
- Think about the amount of work required to perform an operation on the Bag. If you think about comparisons as operations, how much more work is required by the implementation of `add` in the previous question compared to that of the ADT we discussed in class?
- Add a parameterized constructor that creates a Bag from a given array of entries.