CSCI-101 Programming I
Exam 2

Instructions

Please follow the rules below as you work through this exam.

- Please leave all notebooks and electronics (including cell phones and smart watches) at the side of the room.
- This is a closed book/closed notes exam.
- Do not spend too much time on any one problem. You have 50 minutes to complete this exam.
- Partial credit is awarded.
- Please write legibly. If I cannot read your answers, I cannot give you credit.
- Please write your answers in the order specified. If you need additional paper, please raise your hand to ask your instructor for additional paper.
- Your code must be written to behave as specified.
- You must properly use all identifiers that are explicitly stated.
- Please use proper and consistent coding conventions (indentation, naming identifiers, etc.).
- Please stay in your seat until you are ready to hand in your exam. You may leave when you are finished.
- Once you leave the testing room you cannot return until the exam is over. If you need to use the restroom, please use it now.

1. Assume the code you are writing for this exam is placed in a file named **Exam2.java**. Write a *complete program* that will run when compiled and that satisfies the program requirements shown below.

2. Write a method named **printArray** that takes an array of integers as an argument and prints the values of the array to the screen on a single line with spaces between them.

3. Write a method named **largest** that has an array of integers named **arr** as a parameter. If the length of **arr** is greater than **0** then the method returns the largest value that is in the array; otherwise the method returns **0**.

4. Write a method named **count** that takes an array of integers named **arr** and an integer named **k** as arguments. The method returns an integer whose value is equal to the number of times the value in **k** is stored in **arr**.

5. Write a method named **clone** that takes an array of integers as an argument. The method returns a **new** array that has the same length as the array passed into the method and contains the same values that are in the array that is passed into the method.

6. In **main**, add code that does the following.
    a. Create a Scanner that can read from the keyboard.

    b. Create an array named **arr1** that can hold 3 integers.

    c. Ask the user to enter 3 integers.

    d. Read the values entered by the user and store them in **arr1.**

    e. Print the values in **arr1** using the method named **printArray**.

    f. Use the method named **largest** to compute the largest of the values in **arr1**, storing the value in a variable named **biggest**, then print the value in **biggest** to the screen.

    g. Use the method named **count** to compute the number of integers in **arr1** that have the value **7**, storing the result in a variable named numSevens, then print the value in **numSevens** to the screen.

    h. Use the method named **clone** to create a new array of integers named **arr2** that holds the same values as those in **arr1**.

    i. Print the values in **arr2** using the method named **printArray**.