Intro to Java Week 3 Research Assignment

**Points possible:** 30

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| Category | Criteria | % of Grade |
| Accuracy | Is the information accurate? | 25 |
| Organization | Is the essay clean and organized? Ideas are presented in a logical order. | 25 |
| Citations | Students reference and cite at least 5 sources. | 25 |
| Completeness | All requirements of the assignment are complete. | 25 |

**Instructions:** In however many words necessary, write a thorough essay response to each of the below prompts. Be sure to include at least 5 references for this assignment. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions. Push this document to your GitHub repository for this week. Add the URL for this week’s repository to this document where instructed and submit this document to your instructor when complete.

**Select five methods from the String JavaDocs and describe the following for each: 1) what the method signature is, 2) what the method does, and 3) why would this method be useful (how could you use it)?**

**1. equals(Object anObject). This method compares the string to a specified object. It would be useful. as a boolean modifier this method would be used to look if the code needs to keep running or to output more information.**

**2. toCharArray(). This method converts the string to a new character array. This would be useful for counting average number of a certain letter in a string and such.**

**3. length(). this method returns the length of the string. This would be useful when counting the average words or letters in a string.**

**4. hashCode(). This returns a hash code for the string. The hashCode() is useful for storing elements and returning integers.**

**5. concat(String str). This concatenates the specified string to the end of this string. This is useful for adding words together without rewriting code.**

**Select five methods from the Array JavaDocs and describe the following for each: 1) what the method signature is, 2) what the method does, and 3) why would this method be useful (how could you use it)?**

**1. toString(double[] a). This returns a string representation of the contents of the array. This is useful when you want to write the number.**

**2. sort(float[] a). This is for sorting the array into ascending numerical order. This is very useful for organisation of data.**

**3. hashCode(int[] a). This returns a hash code based on whats in the array. This is used instead of writing out code to get an integer, you can use a hash code method.**

**4. equals(short[] a, short[] a2). This returns true if the two specified arrays of shorts are equal to one another. This is useful because if you are working with 2 arrays that are very similar, this will show you there is a difference.**

**5. copyOfRange(int[] original, int from, int to). This is used to copy the specified range of one array into another array. If you are working with very simliar data this can save time and put you a step ahead.**

**What is your favorite thing you learned this week?**

**The use of methods, although still confusing, i find them useful when i do use them.**

**References:**

[**https://docs.oracle.com/javase/7/docs/api/java/util/Arrays.html**](https://docs.oracle.com/javase/7/docs/api/java/util/Arrays.html)

[**https://docs.oracle.com/javase/7/docs/api/java/lang/String.html**](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html)

**URL to GitHub Repository:**