```java
package week03codingassignment;

import java.util.Scanner;

public class Javaweeks34codingassignment {

public static void main(String[] args) {

// TODO Auto-generated method stub

//1. Create an array of int called ages that contains the following values:
3, 9, 23, 64, 2, 8, 28, 93.

int[] ages = {3,9,23,64,2,8,28,93};

//a. Programmatically subtract the value of the first element in the array
from the value in the last element of the array (i.e. do not use ages[7] in
your code). Print the result to the console.

System.out.println(ages[ages.length - 1] - ages[0]);

//b. Add a new age to your array and repeat the step above to ensure it is
dynamic (works for arrays of different lengths).

System.out.println(ages[ages.length - 1] - ages[0]);

//c. Use a loop to iterate through the array and calculate the average age.
Print the result to the console.

int sum = 0;

int average = 0;

for(int number : ages) {

sum = sum + number;

average = sum/ages.length;

}

System.out.println(average);

//2. Create an array of String called names that contains the following
values: "Sam", "Tommy", "Tim", "Sally", "Buck", "Bob".

String[] names = {"Sam", "Tommy", "Tim", "Sally", "Buck", "Bob"};

//a. Use a loop to iterate through the array and calculate the average number
of letters per name. Print the result to the console.

double average1 = 0;
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double total = 0;

for(String letter : names) {

total = total + letter.length();

average1 = total/names.length;

}System.out.println(average1);

//b. Use a loop to iterate through the array again and concatenate all the
names together, separated by spaces, and print the result to the console.

for(String name: names) {

System.out.print(name + " ");

}

//3. How do you access the last element of any array?

System.out.println("\n" +names[names.length - 1]);

//4. How do you access the first element of any array?

System.out.println(names[0]);

//5. Create a new array of int called nameLengths. Write a loop to iterate
over the previously created names array and add the length of each name to
the nameLengths array.

//6. Write a loop to iterate over the nameLengths array and calculate the sum
of all the elements in the array. Print the result to the console.

//7. Write a method that takes a String, word, and an int, n, as arguments
and returns the word concatenated to itself n number of times. (i.e. if I
pass in "Hello" and 3, I expect the method to return "HelloHelloHello").

System.out.println(concatenatedWord("shane", 4));

//8. Write a method that takes two Strings, firstName and lastName, and
returns a full name (the full name should be the first and the last name as a
String separated by a space).

System.out.println(fullName("Shane", "Samuda"));

//9. Write a method that takes an array of int and returns true if the sum of
all the ints in the array is greater than 100.

int[] myArray = {12, 30, 44, 50};

System.out.println(sumGreatThanHundred(myArray));
```

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//10. Write a method that takes an array of double and returns the average of
all the elements in the array.

double[] myArray2 = {30, 45, 60, 75};

System.out.println(averageOfArray(myArray2));

//11. Write a method that takes two arrays of double and returns true if the
average of the elements in the first array is greater than the average of the
elements in the second array.

double[] myArray3 = {50, 12, 5, 150};

System.out.println(isArrayOneGreaterThanArrayTwo(myArray3, myArray2));

//12. Write a method called willBuyDrink that takes a boolean isHotOutside,
and a double moneyInPocket, and returns true if it is hot outside and if
moneyInPocket is greater than 10.50.

System.out.println(willBuyDrink(false, 10.60));

//13. Create a method of your own that solves a problem. In comments, write
what the method does and why you created it.

Scanner userInput = new Scanner(System.in);

}

//method 7.

public static String concatenatedWord(String word, int n) {

String words = "";

for(int i = 0; i < n; i++ ) {

words = words + word;

}

return words;

}

//method 8.

public static String fullName(String firstName, String lastName) {

String fullName = firstName + " " + lastName;

return fullName;
```

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}

//method 9.

public static boolean sumGreatThanHundred(int[] sum) {

int sum1 = 0;

for(int num : sum) {

sum1 = sum1 + num;

if(sum1 > 100) {

return true;

}else {

}

} return false;

}

//method 10

public static double averageOfArray(double[] myArray) {

double sum = 0;

double average = 0;

for(double num : myArray) {

sum = sum + num;

average = sum/myArray.length;

}

return average;

}

//method 11

public static boolean isArrayOneGreaterThanArrayTwo(double[] array1, double[] array2) {

double sum = 0;
```

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double sum2 = 0;

double average = 0;

double average2 = 0;

for(double num : array1) {

sum = sum + num;

average = sum/array1.length;

}for(double num2 : array2) {

sum2 = sum2 + num2;

average2 = sum2/array2.length;

}

if (average < average2) {

return false;

}return true;

}

//method 12

public static boolean willBuyDrink(boolean isHotOutSide, double
moneyInPocket) {

if(isHotOutSide != true || moneyInPocket < 10.50) {

return false;

}

return true;

}

}
```

Video link: https://youtu.be/8UK6pS07Afk