```
package week0304Assignment;

import java.util.Arrays;

public class CodingAssignment {

	public static void main(String[] args) {

	//1.
	int[] ages = {3, 9, 23, 64, 2, 8, 28, 93, 45};
	System.out.println(ages[ages.length - 1] - ages[0]);


	//2a.
	String[] names = {"Sam", "Tommy", "Tim", "Sally", "Buck",
"Bob"};

	int total = 0;
	for(int i = 0; i < names.length; i++) {
		total += names[i].length();
	}

	int average = total / names.length;
	System.out.println(average);


	//2b.
	String allNames = "";
	for(int i = 0; i < names.length; i++) {
		if (i == 0) {
			allNames += names[i];
		}else {
			allNames+= " " + names[i];
		}
	}
	System.out.println(allNames);

	//3.
	System.out.println(names[names.length - 1]);


	//4.
	System.out.println(names[0]);


	//5.
	int[] nameLengths = new int[names.length];

	for (int i = 0; i < names.length; i++) {
		nameLengths[i] = names[i].length();
```

```
        }
        System.out.println(Arrays.toString(nameLengths));


        //6.
        int namesSum = names.length;
        System.out.println(namesSum);


        //7a.
        String word = "Hello";
        int n = 3;
        String repeatedWord = repeatWord(word, n);
        System.out.println(repeatedWord);


        //8a.
        String firstName = "Barry";
        String lastName = "Johnson";
        String fullName = getFullName(firstName, lastName);

        System.out.println(fullName);


        //9a.
        int[] numbers = {45, 72, 83};
        boolean result = isSumGreaterThan100(numbers);
        System.out.println(result);

        //10a.
        double[] randomNumbers = {2.5, 3.7, 22.1, 6.2};
        double randomNumbersAverage = calculateAverage(randomNumbers);
        System.out.println(randomNumbersAverage);


        //11a.
        double[] randomNumbers02 = {6.4, 8.3, 12.8, 9.6};
        boolean result02 = compareAverages(randomNumbers02,
randomNumbers);
        System.out.println(result02);


        //12a.
        boolean willBuy = willBuyDrink(true, 1.75);
        System.out.println(willBuy);


        //13a.
     //will I go grocery shopping today? Needs: > $100 in wallet and
gas in car
```

```
        boolean willGo = willGoGroceryShopping(120.0, true);
        System.out.println(willBuy);


}



        //7b.
        public static  String repeatWord(String word, int n) {
                StringBuilder sb = new StringBuilder();
                for(int i = 0; i < n; i++) {
                        sb.append(word);
                }
                return sb.toString();
        }

        //8b.
        public static String getFullName(String firstName, String
lastName) {
                String fullName = firstName + " " + lastName;
                return fullName;
        }

        //9b.
        public static boolean isSumGreaterThan100(int[] numbers) {
                int sum = 0;
                for (int i = 0; i < numbers.length; i++) {
                        sum += numbers[i];
                }
                return sum > 100;
        }

        //10b.
        public static double calculateAverage(double[] randomNumbers)
{
                double sum = 0;
                for(int i = 0; i < randomNumbers.length; i++){
                        sum += randomNumbers[i];
                }
                double randomNumbersAverage = sum /
randomNumbers.length;
                return randomNumbersAverage;
        }

        //11b.
        public static boolean compareAverages(double[] array1,
double[] array2) {
                double sum1 = 0, sum2 = 0;
```

```
                for(int i = 0; i < array1.length; i++) {
                        sum1 += array1[i];
                }
                double avg1 = sum1 / array1.length;

                for(int i = 0; i < array2.length; i++) {
                        sum2 =+ array2[i];
                }
                double avg2 = sum2 / array2.length;
                return (avg1 > avg2);
        }

        //12b.
        public static boolean willBuyDrink(boolean isHotOutside,
double moneyInPocket) {
                if (isHotOutside && moneyInPocket > 10.50) {
                        return true;
                }else {
                        return false;
                }
        }

        //13b.
        public static boolean willGoGroceryShopping(double
walletBalance, boolean hasGasInCar) {
                if(walletBalance > 100 && hasGasInCar) {
                        return true;
                }else {
                        return false;
                }
        }


}
```