```java
package assignement0304;

public class arraysandMethods {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
// 1.a
        int[] ages= {3, 9, 23, 64, 2, 8, 28, 93, 90};
        int newAges = ages[ages.length-1]-ages[0];

        System.out.println(newAges);
// 1.b
        System.out.println(newAges);

        //1.c first, initialize the integer with value "0"
        int totalAges = 0;
        for (int i: ages) {
            totalAges+= i;
        }

        double averageAges = (double) totalAges / ages.length;
        System.out.println("The average age is: " + averageAges);

//2.a

        String[] names = {"Sam", "Tommy", "Tim", "Sally", "Buck", "Bob"};
        //first, initialize the integer with value "0"
        int totalNumberOfLetter = 0;
        for (String name : names) {
            totalNumberOfLetter+= name.length();

        }
        double averageNumberOfLetter = (double) totalNumberOfLetter / names.length;
        System.out.println("The average number of letter is: " + averageNumberOfLetter);

// 2.b

        String concatinatedNames = " ";
        for (String name : names) {
            concatinatedNames+= name + " ";

        }

        System.out.println(concatinatedNames);
        //3.
        // to find the last element
            //int nameOfArray = nameOfArray[nameOfArray.length-1;
    //4.
        //to find the first element
            // int nameOfArray = nameOfArray[0];

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

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

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58
59          }
60      //6.
61              int sumofelements = 0;
62              for (int i = 0; i < nameLengths.length; i++) {
63                  sumofelements += nameLengths[i];
64          }
65
66              System.out.println("The Sum of elements: " + sumofelements);
67
68
69          }
70      //7.
71              public static String concatenateWord(String word, int n) {
72                  String result = "";
73              for (int i=0; i<n; i++) {
74                  result += word;
75          }
76              return result;
77  }
78
79      //8.
80          public static String fullName(String firstName, String lastName) {
81              return firstName + " " + lastName;
82
83          }
84
85      //9.
86          public static boolean intsArray(int[] nums) {
87              int sum = 0;
88              for (int num : nums) {
89                  sum += num;
90              }
91              return sum > 100;
92          }
93
94      // 10.
95          public static double avgElements(double[] nums) {
96              double sum = 0;
97              for  (double num : nums) {
98                  sum += num;
99              }
100
101             return sum / nums.length;
102
103         }
104
105
106     // 11.
107         public static boolean doubleArray(double[] first, double[] second) {
108             int totalfirst = 0;
109             int totalsecond = 0;
110             for (double i : first) {
111                 totalfirst += i;
112             }
113             for (double i : second) {
114                 totalsecond += i;
```

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115             }
116             double averageFirst = (double) totalfirst/first. length;
117             double averageSecond = (double)totalsecond/second.length;
118              return averageFirst > averageSecond;
119         }
120 
121     //12.
122         public static boolean willBuyDrink(boolean isHotOutside, double moneyInPocket) {
123             if (isHotOutside && moneyInPocket > 10.50) {
124                 return true;
125             } else {
126                 return false;
127             }
128 
129         }
130 
131 
132     //13.
133         public static boolean pizzaSlice(double slice) {
134             if (slice < 1.99) {
135                 return true;
136             } else {
137                 return false;
138             }
139         }
140 
141 
142 
143         }
144 
```