Zachary Goss

Week 6 Arrays

**Question 1**

**Code:**

/\*\*

\*

\* @author Zach

\*/

public class Question1 {

public static void main(String[] args)

{

int[] array1 = {1, 2, 3, 4};

int[] array2 = {1, 2, 3, 4};

boolean answer;

answer = test(array1, array2);

if(answer == true)

{

System.out.println("Hooray, they are identical");

}

if(answer == false)

{

System.out.println("Wah! these arrays are not identical");

}

}

public static boolean test(int[] a1, int[] a2)

{

int indicator = 0;

boolean answer = true;

for(int i = 0; i < 4; i++)

{

if(a1[i] == a2[i])

{

indicator++;

}

}

if(indicator == 4)

{

answer = true;

return answer;

}

else

{

answer = false;

return answer;

}

}

}

**Output:**

**True output:**

debug:

Hooray, they are identical

BUILD SUCCESSFUL (total time: 0 seconds)

**False output:**

debug:

Wah! these arrays are not identical

BUILD SUCCESSFUL (total time: 0 seconds)

**Question 2**

**Code:**

/\*

\* To change this license header, choose License Headers in Project Properties.

\* To change this template file, choose Tools | Templates

\* and open the template in the editor.

\*/

/\*\*

\*

\* @author Zach

\*/

import java.util.Scanner;

public class Question2 {

public static void main(String[] args)

{

Scanner input = new Scanner(System.in);

int[] intarray = new int[5];

double[] dubarray = new double[5];

double average;

for(int i = 0; i < 5; i++)

{

System.out.println("Hello, please enter a double value now");

dubarray[i] = input.nextDouble();

}

average = average(dubarray);

System.out.println("The average of those numbers is " + average);

}

public static int average(int[] array)

{

int sum = 0;

int average = 0;

for (int i = 0; i < 5; i++)

{

sum += array[i];

}

average = sum/5;

return average;

}

public static double average(double[] array)

{

double sum = 0;

double average;

for(int i = 0; i < 5; i++)

{

sum += array[i];

}

average = sum/5;

return average;

}

}

**Output:**

debug:

Hello, please enter a double value now

53

Hello, please enter a double value now

100

Hello, please enter a double value now

12

Hello, please enter a double value now

88

Hello, please enter a double value now

1

The average of those numbers is 50.8

BUILD SUCCESSFUL (total time: 11 seconds)

**Question 3**

**Code:**

/\*

\* To change this license header, choose License Headers in Project Properties.

\* To change this template file, choose Tools | Templates

\* and open the template in the editor.

\*/

/\*\*

\*

\* @author Zach

\*/

import java.util.Scanner;

public class Question3 {

public static void main(String[] args)

{

Scanner input = new Scanner(System.in);

double[] grades = new double[11];

double sentinel = 0;

int counter = 0;

while(sentinel != -1)

{

System.out.println("Hello, please enter up to 10 grades(-1 to quit)");

sentinel = input.nextDouble();

counter++;

grades[counter] = sentinel;

if (counter == 10)

{

sentinel = -1;

}

}

int sum = 0;

int above = 0;

int below = 0;

double average = 0;

for(int i = 1; i < 11; i++)

{

sum += grades[i];

}

average = sum/10;

grades[0] = average;

for(int b = 0; b < 10; b++)

{

if(grades[b] >= average)

{

above += 1;

}

if(grades[b] < average)

{

below += 1;

}

}

System.out.println("The average of your grades is " + average + "\n " + above + " grades were above or equal to the average \n " + below + " grades were below the average");

System.out.println("The entire list of grades is printed here for your convenience. ");

for(int a = 1; a < grades.length; a++)

{

System.out.print(grades[a] + ", ");

}

}

}

**Output:**

debug:

Hello, please enter up to 10 grades(-1 to quit)

92

Hello, please enter up to 10 grades(-1 to quit)

88

Hello, please enter up to 10 grades(-1 to quit)

91

Hello, please enter up to 10 grades(-1 to quit)

85

Hello, please enter up to 10 grades(-1 to quit)

54

Hello, please enter up to 10 grades(-1 to quit)

62

Hello, please enter up to 10 grades(-1 to quit)

100

Hello, please enter up to 10 grades(-1 to quit)

81

Hello, please enter up to 10 grades(-1 to quit)

79

Hello, please enter up to 10 grades(-1 to quit)

64

The average of your grades is 79.0

8 grades were above or equal to the average

2 grades were below the average

The entire list of grades is printed here for your convenience.

92.0, 88.0, 91.0, 85.0, 54.0, 62.0, 100.0, 81.0, 79.0, 64.0, BUILD SUCCESSFUL (total time: 22 seconds)