BRAC University

Department of Computer Science and Engineering

**CSE110 (Programming Language-I)**

Assignment 8

**Task 1**

Write a java program that would input three numbers from the user and print sum, then the first number, then the 2nd number followed by 3rd number. If user enters 10, 20, 30. Then output should be 60, 10, 20, and 30.

**Task 2**

Write a java program that reads 10 numbers from the user. The program then reads a number between 0 to 9, and shows the number at the corresponding index number. For instance, if the array is a and the user enters 3, your program should print the value a[3].

**Task 3**

Write a java program that reads 10 numbers from the user, and then prints them in the reverse order.

**Task 4**

Write a java program that reads 10 numbers from the user and prints the first odd number in the list.

**Task 5**

Write a java program that reads 10 numbers from the user and prints the first even number in the list.

**Task 6**

Write a java program that reads 10 numbers from the user and prints the last odd number in the list.

**Task 7**

Write a java program that reads 10 numbers from the user and prints the last even number in the list.

**Task 8**

Write a java program that reads 10 numbers from the user, and then prints only the even numbers in reverse order.

**Task 9**

Write a java program that reads 10 numbers from the user. Then read another number from the user, and print “yes” if this number exists among the first 10. Print “no” otherwise.

**Task 10**

Write a java program that reads 10 numbers from the user. After reading each number, print all the numbers that have been entered so far.

After user enters 11, print 11

After user enters 22, print 11, 22

…

After user enters 99, print 11, 22 ….. 99

**Task 11**

Write a java program that reads 10 numbers from the user, but does not allow the user to enter duplicates. This means that if a number has been entered already, the program will not accept it as input again and instead ask the user to enter a different number.

This week we will not be starting any new topics. Instead, we will continue working on the array problems from last week, and a few additional problems.

**Task 12**

Write a program which reads 5 numbers into an array and prints the largest number.

If the user enters 7, 13, 2, 10, 6 then your program should print 13.

**Task 13**

Write a program which reads 5 numbers into an array and prints the largest number and its location in the array.

If the user enters 7, 13, 2, 10, 6 then your program should print “largest number 13 was found at location 1”.

**Task 14**

Write a program which reads 5 numbers into an array and prints the smallest and largest number and their location in the array.

If the user enters 7, 13, -5, 10, 6 then your program should print

“Smallest number -5 was found at location 2”.

“Largest number 13 was found at location 1”.

**Task 15**

Write a program which reads 5 numbers into an array, sorts/arranges the numbers from low to high and prints all numbers in the array.

If the user enters 7, 13, 2, 10, 6 then your program should print 2, 6, 7, 10, and 13.

**Task 16**

Write a program which reads 5 numbers into an array, sorts/arranges the numbers from high to low and prints all numbers in the array.

If the user enters 7, 13, 2, 10, 6 then your program should print 13, 10, 7, 6, 2.

**Task 17**

Write a program which asks the user how many numbers to take. Then takes that many numbers and prints the median value. Read http://www.mathsisfun.com/median.html

If the user gives 10, 50, 40, 20, 30. Then the median is 30 (because 30 falls in middle 10, 20, **30**, 40, 50)

If the user gives 30, 10, 40, 20. Then the median is 25 because, (20+30)/2=25(average of two middle values from 10, **20**, **30**, 40)

**Task 18**

Write a java program that reads 15 numbers from the user, all the numbers within the range 0-9. Then print the number of times each number has been entered by the user.

**Task 19**

Write a java program that reads 10 numbers from the user. Write the program in such a way so that

if the user enters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, then the output should be 1, 3, 5, 7, 9, 2, 4, 6, 8, 10.

If the user enters 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, then the output should be 10, 30, 50, 70, 90, 20, 40, 60, 80, 100.

If the user enters 2, 5, 6, 9, 12, 13, 14, 15, 16, 17 then the output should be 2, 6, 12, 14, 16, 5, 9, 13, 15, 17.

**Task 20**

Create a String array (size 10) consisting of the words “zero”, “one”, “two”……, “nine”. Then take a number (between 0 and 9) from the user and print that number in words from the array. If the user enters 5, you should print a[5] and output should be “five”.

**Task 21**

Read from the following link and try to use printf () for all variable types you know

http://web.cerritos.edu/jwilson/SitePages/java\_language\_resources/Java\_printf\_method\_quick\_reference.pdf

Change the following System.out.println() to a System.out.printf() method.

**Current output:** 5.984807753012208

**Desired output after the change**: 5.9848

double z;

z = 5+ Math.sin(80\*Math.PI/180);

System.out.println(z);