

Fundamentals of Programming 1

Exercise sheet 7 – 10%

***** READ THE QUESTIONS CAREFULLY *****

***** NAME YOUR FILES Question1.java etc *****

***** SUBMIT NEAT AND TIDY CODE (INDENT/COMMENT) *****

Question 1

Write a Java program that uses a **while loop** to prompt the user to enter **4 integer numbers**. Your program should print the product of the numbers entered when the loop ends. Your screenshot should use the test case shown below.

```
Product of four numbers
Enter a number: 2
Enter a number: 4
Enter a number: 6
Enter a number: 8
Product equals 384
```

Question 2

Write a Java program that uses a **for loop** to complete the first **N** rows of the following output. The number of rows N should be read from the keyboard. Your screenshot should use the test case shown below.

```
1
2 4
3 6 9
4 8 12 16
```

```
Enter number of rows N: 6
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
6 12 18 24 30 36
```

Question 3

Write a Java program that continues to read in integer numbers until the user enters the value **-1 (sentinel)**. Your program should **sum** all the **even** values entered and print the result when the loop ends. Use the following program outline as a guide. See test case below....

```
// prompt user to enter list of numbers with a sentinel of -1
// read in a number
// while the number entered is not -1
//     if the number is even add it to the sum
//     read in the next number
// end of loop
// print the sum of even numbers
```

```
Enter a list of numbers, sentinel -1: 1 2 3 4 5 6 7 8 9 10 -1
Sum equals 30
```

Deliverables

Place all your files in a folder called **Week7**. Zip the Week7 folder and upload the zip file using the Week7 upload link for your group on MOODLE.

Check the MOODLE upload link for your group deadline**Plagiarism**

This assessment should be an individual piece of work. Any evidence of plagiarism will result in a grade of zero for all parties involved and will trigger the Universities plagiarism policy 3AS08 (see course coordination page).