

**Please fill in your Student Number and, optionally, Name.**

**Student Number** : \_\_\_\_\_

**Name** : \_\_\_\_\_

**University of Cape Town ~ Department of Computer Science**

**Computer Science 1015F ~ 2007**

## **Theory Retest 4A**

<b>Question</b>	<b>Mark</b>	<b>Max</b>	<b>Initials</b>
1		9	
2		8	
3		13	
<b>TOTAL</b>		<b>30</b>	

**Marks : 30**

**Time : 40 minutes**

**Instructions:**

- a) Answer all questions.
- b) Write your answers in the space provided.
- c) Show all calculations where applicable.

### Question 1: 1D Arrays. [9]

- a) Write Java code to define an integer array called “data” that contains the following six (6) values:

-7 -2 -1 -2 1 -1

Your code should contain a loop that processes these values by adding four (4) to any negative value and making any positive value negative. For example:

-7 -2 -1 -2 1 -1 becomes -3 2 3 2 -1 3

Finally, print out the final values in order as above. For example, print out -3 2 3 2 -1 3. Your code should work for an array of any size! [6]

```
public static void main (String [] args)
{
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- b) The final array “data” from Question 1a above contains the values -3 2 3 2 -1 3. Write Java code to print these values out in reverse order by making use of a **loop**. For example:

-3 2 3 2 -1 3 is printed as 3 -1 2 3 2 -3 [3]

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