

Last name	
First name	
Group	

Grade	
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**Algorithmics**  
**Undergraduate 1<sup>st</sup> year S2**  
**Midterm #2 (C2)**  
*4 March 2019 - 9 : 00*  
**Answer Sheets**

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**Answers 1 (A little coursework... - 4 points)**

1. Measures:

- (a) The size of the tree B is:
- (b) The height of the tree B is:
- (c) The path length of the tree B is:
- (d) The external average depth of the tree B is:

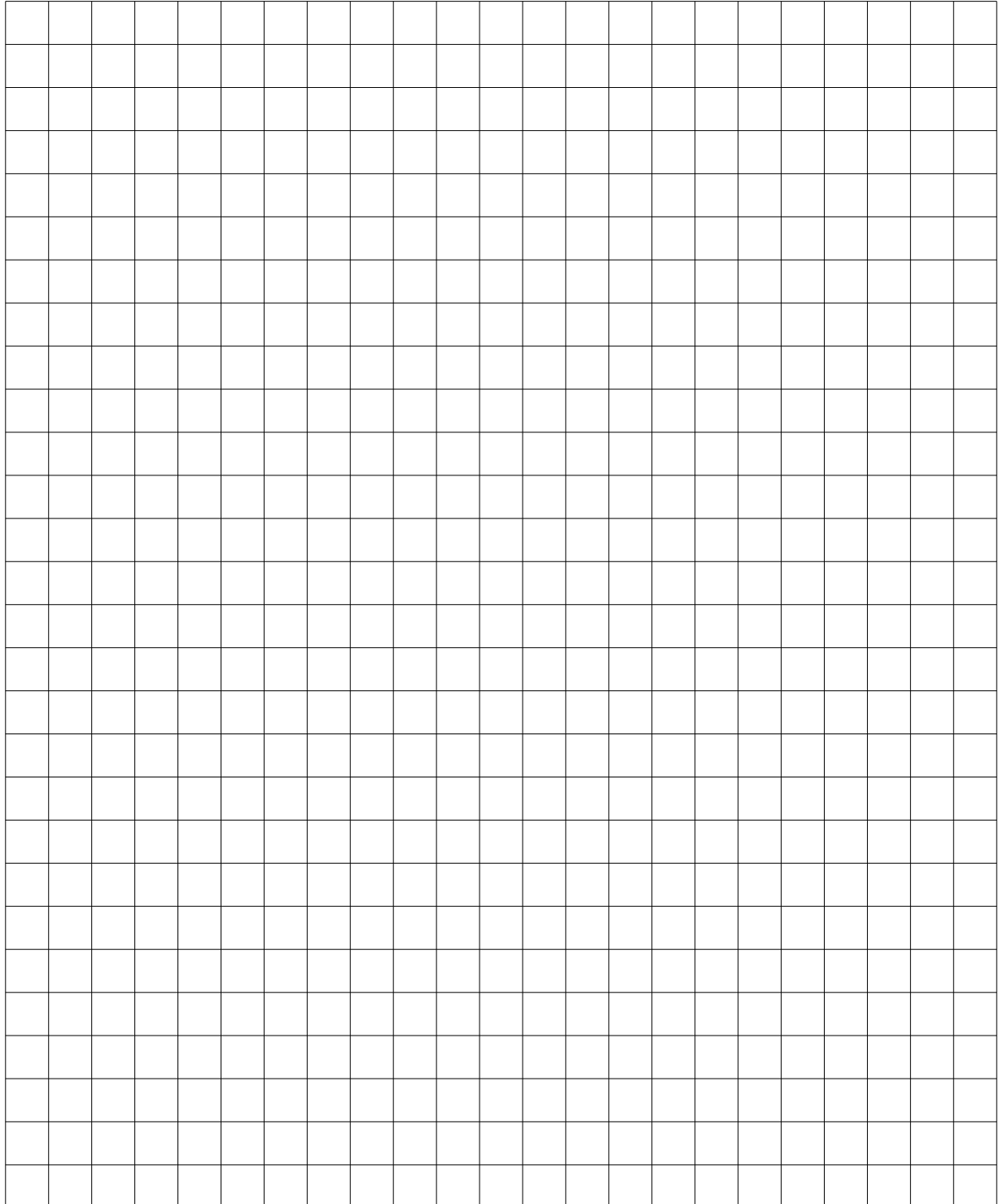
2. Using the hierarchical numbering, the nodes of the tree B are :



*Answers 3 (Research – 4 points)*

**Specifications:**

The function `searchMatrix(M, x)` returns the position  $(i, j)$  of the first value  $x$  found in the non empty matrix  $M$ . If  $x$  is not present, the function returns  $(-1, -1)$ .



*Answers 4 (Tests – 4 points)*

**Specifications:**

The function `equal(B1, B2)` tests whether the trees  $B1$  and  $B2$  are identical.

