

Last name	
First name	
Group	

Grade	
-------	--

Algorithmics
Undergraduate 1st year S2
Midterm #2 (C2)
2 March 2020 - 10 : 00
Answer Sheets

1	
2	
3	
4	
5	

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

1. The size of the tree T is:

2. The height of the tree T is:

3. The internal path length of the tree T is:

4. The external average depth of the tree T is:

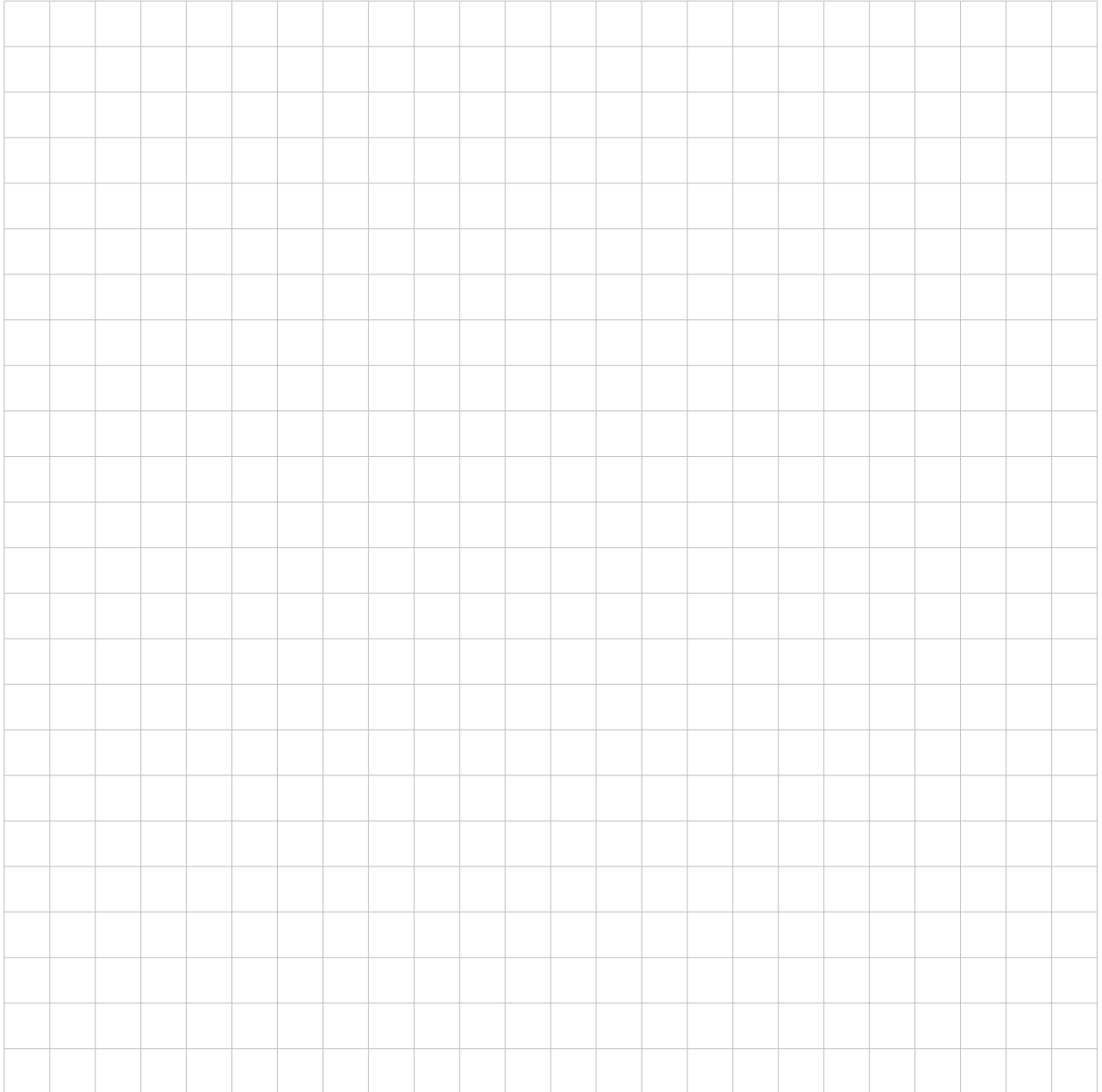
5. The list of nodes of the tree T encountered in postorder traversal is:

6. The list of nodes of the tree T encountered in level order is:

Answers 2 (Magic Square – 4 points)

Specifications:

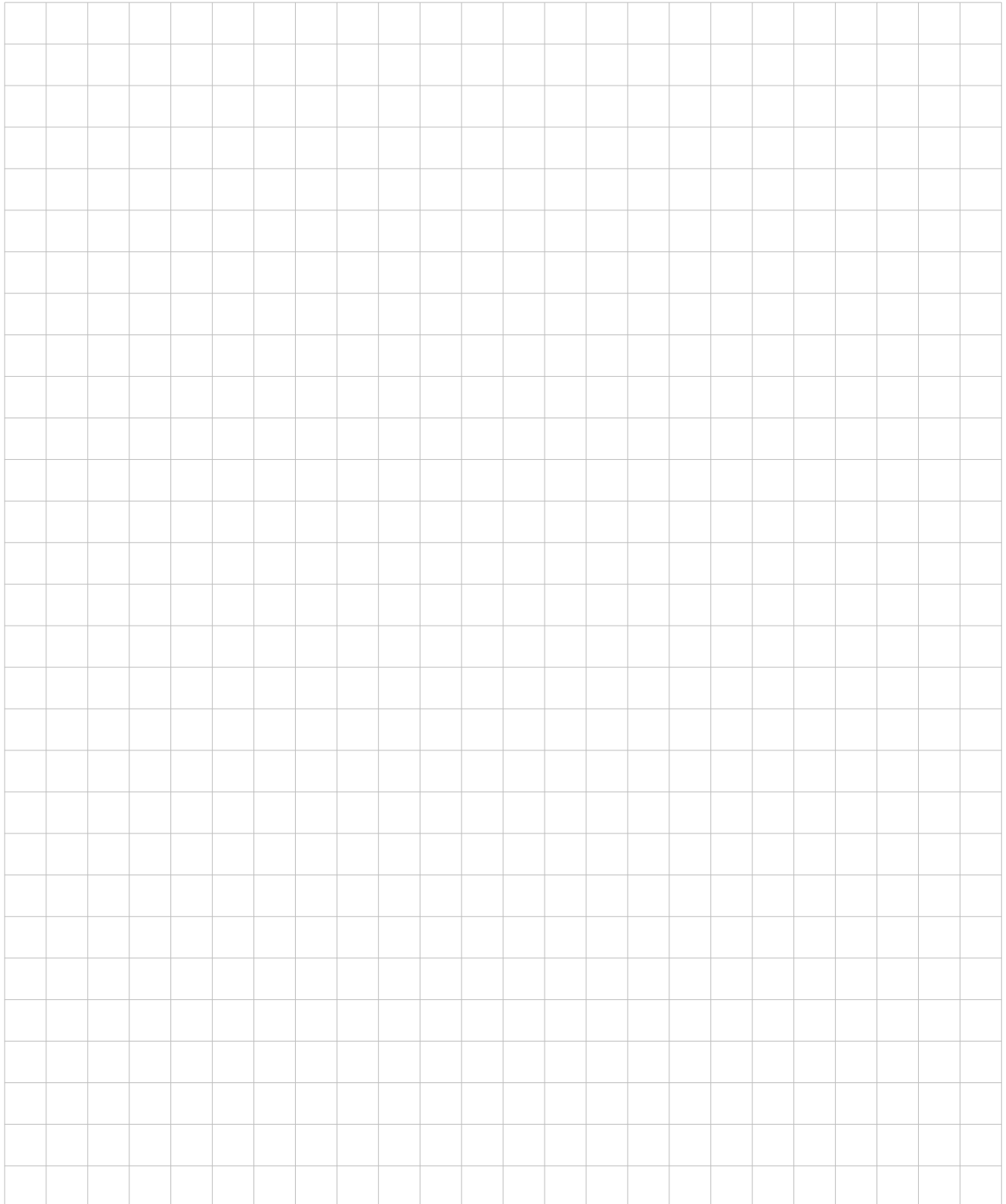
The function `Siamese(n)` builds and returns a magic square of order n (n is an odd integer greater than 2).



Answers 3 (Sub-List – 5 points)

Specifications:

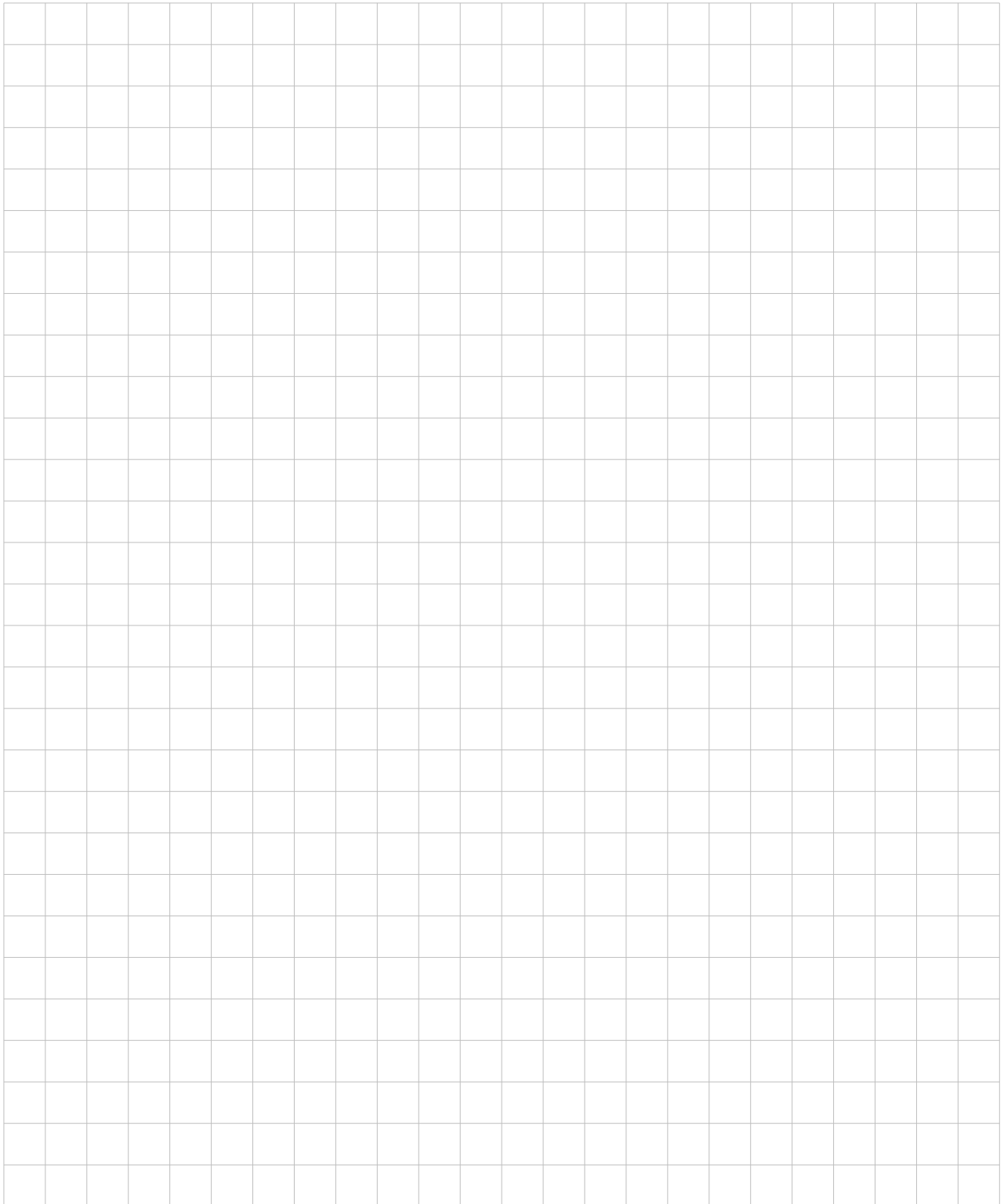
The function `sub_line(M , L)` checks if the list L is included in one of the lines of the matrix M (assumed non empty).



Answers 5 (Width – 4 points)

Specifications:

The function `width(B)` calculates the width of the binary tree B .

A large grid of empty cells for writing the answer, consisting of 20 columns and 25 rows.