

Last name	
First name	
Group	

Grade	
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Algorithmics
Undergraduate 2nd year (S3)
Final Exam #3 (P3)
18 December 2018 - 9 : 30
Answer Sheets

1	
2	
3	
4	
5	
6	

Answers 1 (Warshall - Union-Find – 3 points)

1. Connected components (vertex sets):

C_1 : _____

C_2 : _____

...: _____

...: _____

...: _____

...: _____

2. Which vectors could correspond to the result?

P_1

P_2

P_3

P_4

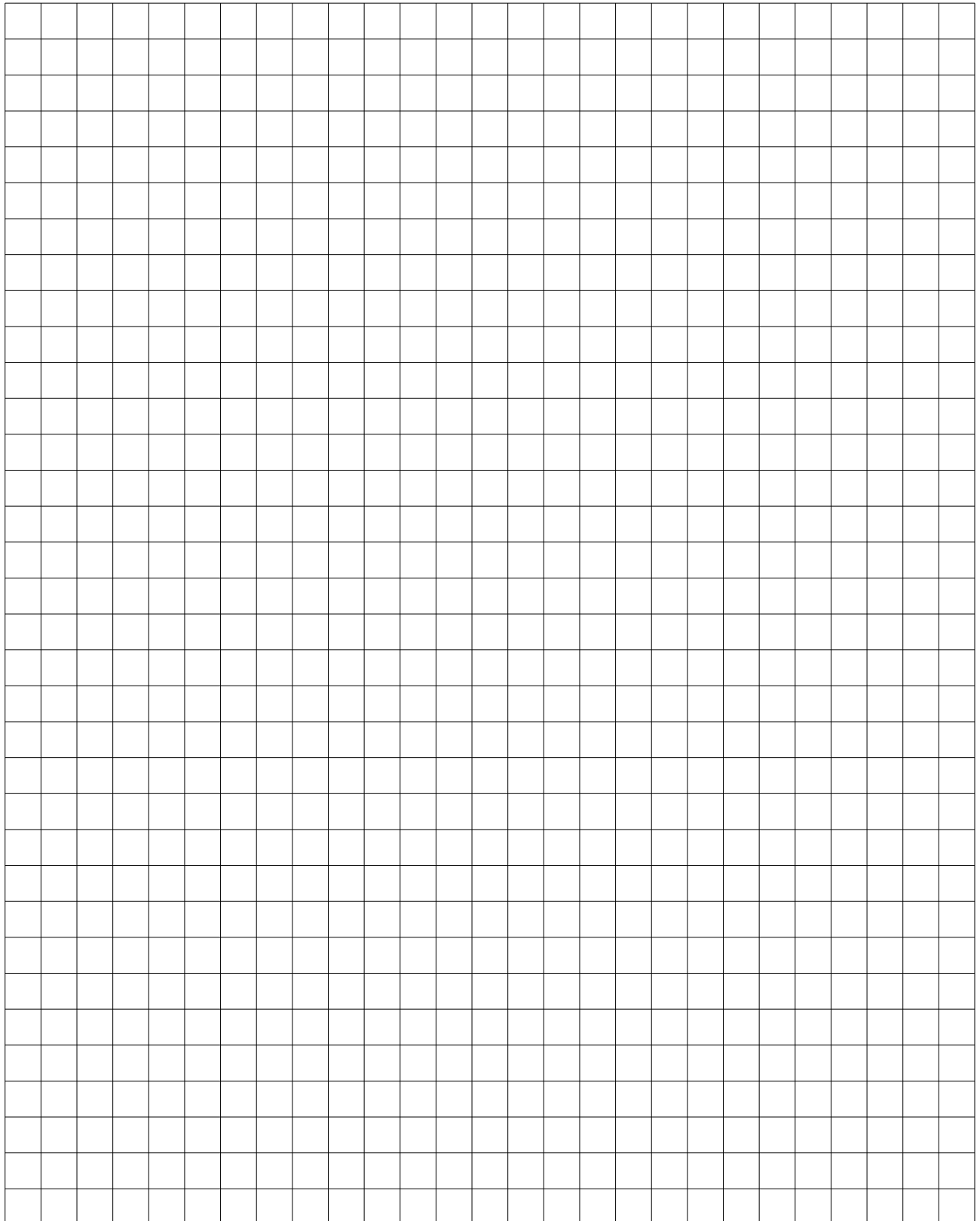
Answers 2 (In the depth of the spanning forest – 2 points)

Spanning forest and extra-edges for the depth-first search of the graph in figure 1:

Answers 4 (Diameter – 5 points)

Specifications:

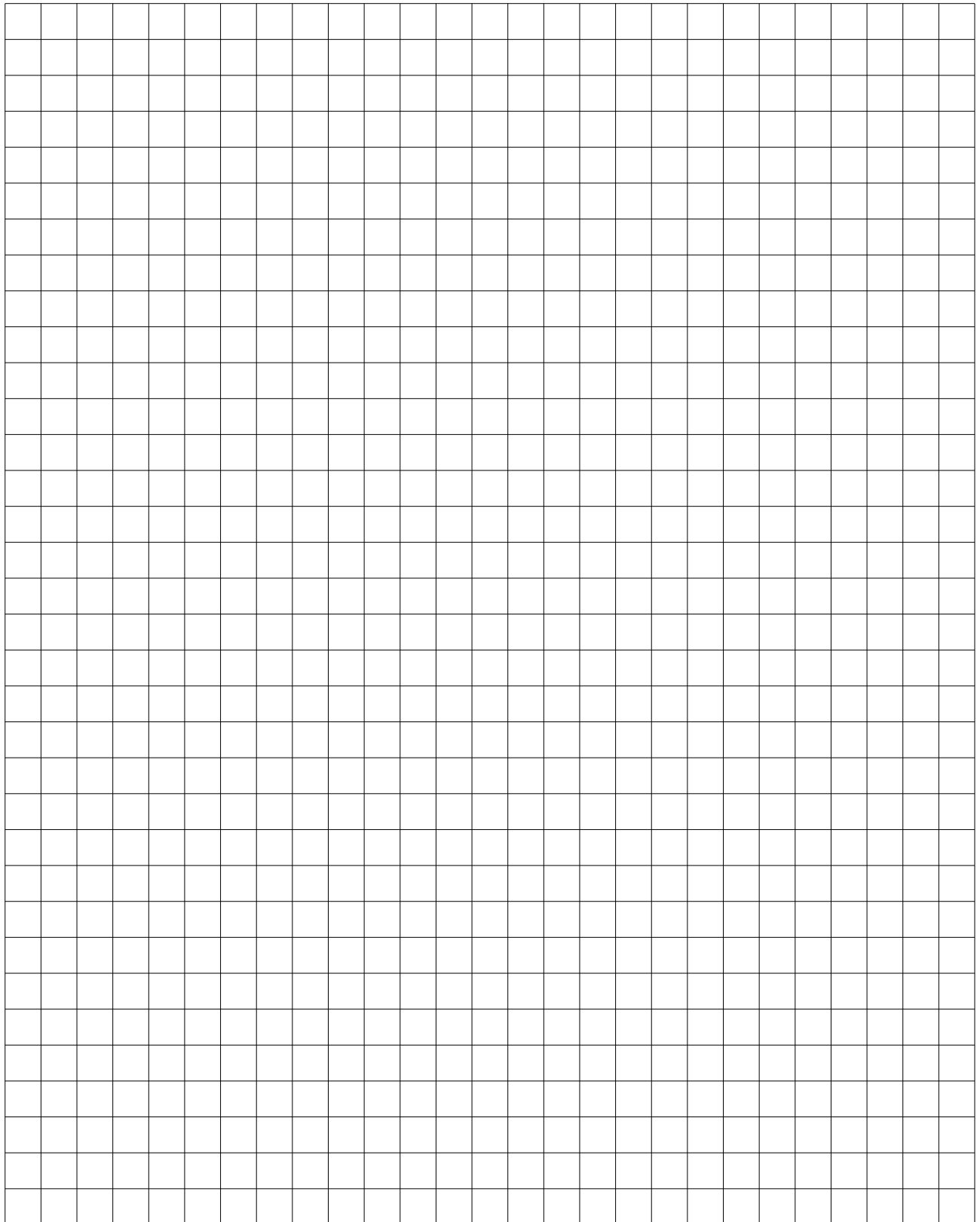
The function `diameter(G)` computes the diameter of G (G is a tree).

A large grid of graph paper, consisting of 25 columns and 30 rows of small squares, intended for the student to write their answer to the problem.

Answers 5 (Euler – 6 points)

Specifications:

The function $\text{Euler}(G)$ tests whether the simple G graph is *Eulerian*.



Answers 6 (What is this? – 3 points)

1. Result returned by `what(G4)`:

`lc =`

	0	1	2	3	4	5	6	7	8	9	10	11	12	13
<code>d</code>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. `d` represents:

3. `lc` represents:
