

Last name	
First name	
Group	

Grade	
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Algorithmics
Undergraduate 2nd year - S3#
Final Exam #3 (P3)
May 12, 2021 - 9 : 30
Answer Sheets

1	
2	
3	
4	

Answers 1 (Warshall - Union-Find – 4 points)

1. Connected components (vertex sets):

C_1 : _____: _____: _____	C_2 : _____: _____: _____
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2. Fill in the adjacency matrix of the transitive closure of G_1 (no value = false, 1 = true)

	0	1	2	3	4	5	6	7	8
0	1								
1		1							
2			1						
3				1					
4					1				
5						1			
6							1		
7								1	
8									1

3. Which vectors could correspond to the result?

	yes	no
P_1		
P_2		
P_3		
P_4		

2. Specifications:

The function `density_components(G)` returns the list of the *densities* of the connected components of the simple undirected graph G .



