Last name	
First name	
Group	

Grade

Algorithmics Undergraduate 2^{nd} year S4 Final Exam #4 (P4) 14 May 2019 Answer Sheets

1	
2	
3	
4	

Answers 1 (Restyled Floyd - 3 points)

1.	How to change Floyd's algorithm so that it detects negative cycles?
2.	How to can use the Floyd's algorithm to find the center of a graph?

Answers 2 (MST or not? - 2 points)

s the spanning subgraph T a MST of G ?	YES - NO	
it is, explain why:		
cherwise, give an example:		
)

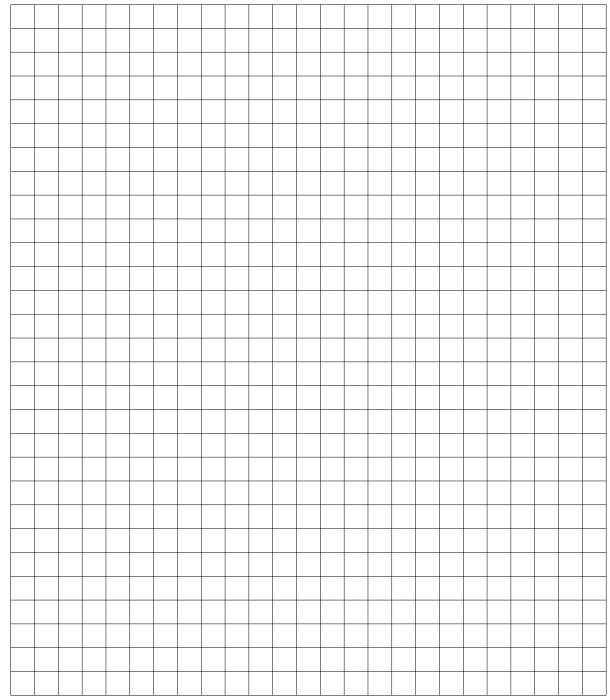
Answers 3 (Eat Crepes - 11 points)

1. Graph that represents the recipe:



2. Specifications:

The function tri_topo (G) returns a topological sort for the acyclic digraph G, where all the vertices are reachable from the vertex 0.



(a) I	How car		L LIAA	м #4	(P4) –								nae	rgra	aua	.е <i>z</i>	ye E	ar 5. Epita
		n we co	pmpute	s the	earli	est ste	ırt da	tes i	n thi	is kir	nd o	f $grades f$	ph?						
F	Early st			each			crep												
Г	start	A	В		С	D		Е		F		G —	I	H]	[J		end
L																			
(b) N	/Iinima	l durat	ion be	fore w	e ea	tour	crepe	·											
(c) <i>I</i>	How car	ı we co	ompute	s the	late	start	lates?	,											
(d) S	Specifion The	cation e functi		ratio	n(G)) com	utes t	he n	inin	num	dur	atio	n to	com	plet	e th	e pr	oject	rep
		nted b													•		•	J	1
																	i		
				1		- 1													

Answers 4 (Prim, Quite Simply - 5 points)

Specifications:

The function Prim(G) returns a MST (Graph) of the connected graph G.

