

Partial exam

- algorithms -

Exercise 1

10 min

1p a) Remember that Dijkstra algorithm? You were given a graph with some weight on the edges and you had to find the **minimum spanning tree**. This algorithm is quite famous; it is also solved by a notorious algorithm design strategy. Can you name that strategy? Also describe it in a few words (3 lines max).

2p b) An algorithm which tries to solve the 3-queen problem prints the following logs to the console:

1	0 _ _	Partial solution	→
2	0 0 _	fail	
3	0 1 _	fail	
4	0 2 _	Partial solution	→
5	0 2 0	fail	
6	0 2 1	fail	
7	0 2 2	fail	← ←
8	1 _ _	Partial solution	→
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			

Complete rows 9 to 19 and find all the solutions if there are any. Only write the missing info.