

Exercise sheet 8a
COMP6741: Parameterized and Exact Computation

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19T3

Exercise 1. Design a randomized FPT algorithm for 1-REGULAR DELETION with running time $O^*(6^k)$

1-REGULAR DELETION

Input: Graph $G = (V, E)$, integer k

Parameter: k

Question: Does there exist $X \subseteq V$ with $|X| \leq k$ such that $G - X$ is 1-regular?

Exercise 2. Design a randomized FPT algorithm for TRIANGLE PACKING.

TRIANGLE PACKING

Input: Graph G , integer k

Parameter: k

Question: Does G have k vertex-disjoint triangles?