

Exercise Sheet 06

Task T18

Show that $\text{DOMINATING SET} \leq_{\text{FPT}} \text{HITTING SET}$.

Task T19

Show that $\text{CLIQUE} \leq_{\text{FPT}} \text{INDEPENDENT SET}$ on regular graphs.

Task T20

Is there a parameterized reduction from VERTEX COVER to INDEPENDENT SET ?

Task T21

Provide an FPT-reduction from INDEPENDENT SET to $\text{SHORT TURING MACHINE ACCEPTANCE (STMA)}$.

Task H13 (5 credits)

Show that $\text{HITTING SET} \leq_{\text{FPT}} \text{DOMINATING SET}$.

Task H14 (5 credits)

Provide an FPT-reduction from DOMINATING SET to $\text{SHORT MULTI-TAPE TURING MACHINE ACCEPTANCE}$.