

# Representation Theory of Finite-Dimensional Algebras NMAG442

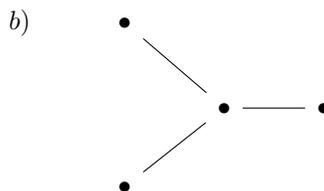
Exercise session 7—May 19, 2023

We work over an algebraically closed field  $k$  and with finite-dimensional modules.

## Gabriel's theorem.

*Exercise 1.* Give a complete classification of the indecomposable representations/modules, up to isomorphism, of the following quivers. Write explicitly the reflections and the Coxeter transformations expressing them by their matrices with respect to the canonical basis. In part b) you can choose your favourite orientation.

a)  $1 \longleftarrow 3 \longrightarrow 2$



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