

a. An-Nakayama algebra with length n and generators m

$$Q_n : 1 \xrightarrow{\alpha_1} 2 \xrightarrow{\alpha_2} 3 \xrightarrow{\alpha_3} \dots \longrightarrow \dots \xrightarrow{\alpha_{n-2}} n-1 \xrightarrow{\alpha_{n-1}} n$$

b. Mobility Theorem

Corollary 5.7. *If $I_i \cong J_i$, I_i and I_j are irrelevant, J_i and J_j are irrelevant, $\forall i = 1, 2, 3, \dots, m$ and $i \neq j$, then*

$$q(A/\sum_{i=1}^m I_i) = q(A/\sum_{i=1}^m J_i)$$

Theorem 6.4. $q(A_n/I_{T_1}) = 2^m(n-m)!$

Theorem 7.2. $q(A_n/I_{T_2}) = \frac{a_{m+1}n!}{(2m+1)!}$

*c. Bound estimators of the given algebra
(With generator T_1 and T_2)*