$$\begin{tikzcd} \Bbbk_{\mathbb{N}} \arrow[r, shift left] \arrow[d, "b"'] & \Bbbk_{\mathbb{N}} \arrow[l, shift left] \arrow[d, "s"'] \\ \Bbbk^{2^n} \arrow[r, shift left, "q"] & \Bbbk^{2^n} \arrow[l, shift left, "c"] \end{tikzcd}$$

$$\underbrace{\;}\,\underbrace{\;'}\, = \underbrace{\;\ast\;'} \Leftarrow \underbrace{\;}\ast\underbrace{\;'} = 0$$

$$_{M}\;{}^{p} = \sum_{P \subset M} \underbrace{P}\;{}_{M \setminus P}$$

$$\begin{bmatrix} 1 \\ \vdots \\ m \end{bmatrix}^{p} = \sum_{1 \leqslant \nu_1 \leqslant \cdots \leqslant \nu_p \leqslant m} \begin{bmatrix} \nu_1 \\ \vdots \\ \nu_p \end{bmatrix} \begin{bmatrix} \nu_{p+1} \\ \vdots \\ \nu_m \end{bmatrix}$$

$$\underbrace{_{N}\;{}^{m}} \ast {}^{m} = {}_{N}\,\underbrace{\;}$$