

$$y^\eta = \prod_j y \star b_j$$

$$y_1 \cdot y^\eta = \sum_{j_1} y_1 \star b_{j_1} \prod_{j \neq j_1} y \star b_j$$

$$\frac{y_1 \cdot y^\eta}{y^\eta} = \sum_{j_1} \frac{y_1 \star b_{j_1}}{y \star b_{j_1}}$$

$$y_2 y_1 \cdot y^\eta = \sum_{j_1} y_1 \star b_{j_1} \sum_{j_2 \neq j_1} y_2 \star b_{j_2} \prod_{j \neq j_1, j_2} y \star b_j = \sum_{j_1 \neq j_2} y_1 \star b_{j_1} y_2 \star b_{j_2} \prod_{j \neq j_1, j_2} y \star b_j$$

$$\frac{y_2 y_1 \cdot y^\eta}{y^\eta} = \sum_{j_1 \neq j_2} \frac{y_1 \star b_{j_1} y_2 \star b_{j_2}}{y \star b_{j_1} y \star b_{j_2}}$$

$$y_k \cdots y_1 \cdot y^\eta = \sum_{j_1 \cdots j_k}^{\text{dist}} y_1 \star b_{j_1} \cdots y_k \star b_{j_k} \prod_{j \neq j_1 \cdots j_k} y \star b_j$$

$$\frac{y_k \cdots y_1 \cdot y^\eta}{y^\eta} = \sum_{j_1 \cdots j_k}^{\text{dist}} \frac{y_1 \star b_{j_1} \cdots y_k \star b_{j_k}}{y \star b_{j_1} \cdots y \star b_{j_k}}$$