

$$\left\langle P(z_i, \zeta^j) e^{c + \eta^i z_i + y_j \zeta^j + q_j^i z_i \zeta^j} \right\rangle = |\tilde{q}| \left\langle P(z_i, \zeta^j) e^{c + \eta^i z_i} \Big|_{z_i \rightarrow \tilde{q}_i^k (z_k + y_k)} \right\rangle$$

$$= |\tilde{q}| e^{c + \eta^i \tilde{q}_i^k y_k} \left\langle P\left(\tilde{q}_i^k (z_k + y_k), \zeta^j + \eta^i \tilde{q}_i^j\right) \right\rangle.$$