

$$\Delta = -\hbar \eta_i \xi_j c_k + (\xi_i + \xi_j) x_k + (\eta_i + \eta_j) y_k;$$

Simplify@With[{ $\mathbb{E}$  = MatrixExp},

$$\mathbb{E}[\hat{x} \xi_i] \cdot \mathbb{E}[\hat{y} \eta_i] \cdot \mathbb{E}[\hat{x} \xi_j] \cdot \mathbb{E}[\hat{y} \eta_j] ==$$

$$\mathbb{E}[\hat{x} \partial_{x_k} \Delta] \cdot \mathbb{E}[\hat{y} \partial_{y_k} \Delta] \cdot \mathbb{E}[\hat{c} \partial_{c_k} \Delta]$$