

$$\text{lhs} = \int (\mathcal{L} / @ (X_{i,j} [1] X_{i+1,k} [1] X_{j+1,k+1} [1]))$$

$$\text{d} \{ p_{i+1}, p_{j+1}, p_{k+1}, x_{i+1}, x_{j+1}, x_{k+1} \};$$

$$\text{rhs} = \int (\mathcal{L} / @ (X_{j,k} [1] X_{i,k+1} [1] X_{i+1,j+1} [1]))$$

$$\text{d} \{ x_{i+1}, p_{i+1}, p_{j+1}, p_{k+1}, x_{j+1}, x_{k+1} \};$$

$$\text{lhs} === \text{rhs}$$