

$$\begin{aligned}
 f \circ g &= \langle f_1^{\text{op}} \circ g_1, f_2 \circ g_2 \rangle \\
 &= \langle (g_1 \circ f_1)^{\text{op}}, f_2 \circ g_2 \rangle.
 \end{aligned}$$