$$\begin{array}{c} \mathbf{R}_{x}\mathbf{p} + \mathbf{t}_{x} \\ \text{apply}(x, -) \\ \mathbf{p} \\ \mathbf{R}_{y}\mathbf{R}_{x}\mathbf{p} + \mathbf{R}_{y}\mathbf{t}_{x} + \mathbf{t}_{y} \\ \text{apply}(x \circ y, -) \end{array}$$