

$$\begin{aligned} \overbrace{\frac{a}{c} \mid \frac{b}{d}}^z &= \overbrace{a+zc}^{-1} \underline{b+zd} \\ \overbrace{\frac{a}{c} \mid \frac{b}{d}}^0 &= \overline{a}^{-1} b \end{aligned}$$