

$$\begin{aligned}
16. & \left[\left(\frac{x}{y} - \frac{y}{x} \right) : (x+y) + x \left(\frac{1}{y} - \frac{1}{x} \right) \right] : \frac{1+x}{y} = \\
& = \left[\left(\frac{x^2 - y^2}{xy} \right) \cdot \frac{1}{x+y} + x \left(\frac{x-y}{xy} \right) \right] \cdot \frac{y}{1+x} = \\
& = \left[\frac{(x-y)(x+y)}{xy} \cdot \frac{1}{x+y} + \frac{x(x-y)}{xy} \right] \cdot \frac{y}{1+x} = \\
& = \left(\frac{x-y}{xy} + \frac{x-y}{y} \right) \cdot \frac{y}{1+x} = \left(\frac{x-y + x(x-y)}{xy} \right) \cdot \frac{y}{1+x} = \\
& = \frac{x-y + x^2 - xy}{xy} \cdot \frac{y}{1+x} = \frac{(x-y) + x(x-y)}{xy} \cdot \frac{y}{1+x} = \\
& = \frac{(x-y)(1+x)}{x(1+x)} = \frac{x-y}{x} \quad \begin{array}{l} x \neq 0 \quad x \neq -1 \\ y \neq 0 \quad x \neq -y \end{array}
\end{aligned}$$

$$\begin{aligned}
14. & \frac{2b(a-1)}{(a-2)(b^2-1)} - \frac{a+b}{ab+a-2b-2} - \frac{a-b}{ab-a-2b+2} = \\
& = \frac{2ab-2b}{(a-2)(b-1)(b+1)} - \frac{a+b}{a(b+1)-2(b+1)} - \frac{a-b}{a(b-1)-2(b-1)} = \\
& = \frac{2ab-2b}{(a-2)(b-1)(b+1)} - \frac{a+b}{(b+1)(a-2)} - \frac{a-b}{(b-1)(a-2)} = \\
& = \frac{2ab-2b - [(a+b)(b-1)] - [(a-b)(b+1)]}{(a-2)(b-1)(b+1)} = \\
& = \frac{2ab-2b - (ab-a+b^2-b) - (ab+a-b^2-b)}{(a-2)(b-1)(b+1)} = \\
& = \frac{2ab-2b-ab+a-b^2+b-ab-a+b^2+b}{(a-2)(b-1)(b+1)} = \frac{0}{(a-2)(b-1)(b+1)} = 0
\end{aligned}$$

$a \neq 2, b \neq \pm 1$