

$$\begin{aligned}
 34. \quad & \lim_{x \rightarrow 2} \left(\frac{1}{x-2} - \frac{1}{x^2-4} \right) \\
 &= \lim_{x \rightarrow 2} \frac{x+2-1}{(x-2)(x+2)} \\
 &= \lim_{x \rightarrow 2} \frac{x+1}{(x-2)(x+2)} \text{ does not exist.}
 \end{aligned}$$