

$$\begin{aligned}
 35. \quad & \lim_{x \rightarrow 0} \frac{\sqrt{2+x^2} - \sqrt{2-x^2}}{x^2} \\
 &= \lim_{x \rightarrow 0} \frac{(2+x^2) - (2-x^2)}{x^2(\sqrt{2+x^2} + \sqrt{2-x^2})} \\
 &= \lim_{x \rightarrow 0} \frac{2x^2}{x^2(\sqrt{2+x^2} + \sqrt{2-x^2})} \\
 &= \frac{2}{\sqrt{2} + \sqrt{2}} = \frac{1}{\sqrt{2}}
 \end{aligned}$$