

$$\begin{aligned}
 27. \quad & \lim_{t \rightarrow 0} \frac{t^2 + 3t}{(t+2)^2 - (t-2)^2} \\
 &= \lim_{t \rightarrow 0} \frac{t(t+3)}{t^2 + 4t + 4 - (t^2 - 4t + 4)} \\
 &= \lim_{t \rightarrow 0} \frac{t+3}{8} = \frac{3}{8}
 \end{aligned}$$