

$$\begin{aligned}
 9. \quad & \lim_{x \rightarrow -\infty} \frac{2x - 1}{\sqrt{3x^2 + x + 1}} \\
 &= \lim_{x \rightarrow -\infty} \frac{2 - \frac{1}{x}}{-\sqrt{3 + \frac{1}{x} + \frac{1}{x^2}}} = -\frac{2}{\sqrt{3}},
 \end{aligned}$$

because $x \rightarrow -\infty$ implies that $x < 0$ and so $\sqrt{x^2} = -x$.