

§2.6 Example. Limits at Infinity; Horizontal Asymptotes

Evaluate the limit.

1. $\lim_{x \rightarrow \infty} \frac{3x - 1}{2x + 5}$

2. $\lim_{x \rightarrow \infty} \frac{3x - 1}{x^2 + x + 1}$

3. $\lim_{x \rightarrow \infty} \frac{3x^2 + x - 1}{2x + 1}$

4. $\lim_{x \rightarrow \infty} \frac{\sqrt{9x^2 + 1}}{2x + 3}$