

**MAT 136 (Calculus I), Prof. Jim Swift**  
**Worksheet 9: Limits at infinity**

Evaluate the limit. For full credit (on an exam or quiz), use the rule:

If  $\lim_{x \rightarrow \infty} f(x)$  and  $\lim_{x \rightarrow \infty} g(x)$  both exist, and  $\lim_{x \rightarrow \infty} g(x) \neq 0$ , then  $\lim_{x \rightarrow \infty} \frac{f(x)}{g(x)} = \frac{\lim_{x \rightarrow \infty} f(x)}{\lim_{x \rightarrow \infty} g(x)}$ .

$$\lim_{x \rightarrow \infty} \frac{2x^2 + 3x - 1}{3x^2 - x - 4} =$$