SECTION 4.6: LIMITS AT INFINITY AND ASYMPTOTES (DAY 1)

1. Limits at Infinity: In plain English, what should the symbols below mean?

   $\lim_{x\to\infty} f(x) = L$

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2. Using the calculating tool of your choice, determine the limits below or determine that the limit does not exist.

   (a) $\lim_{x\to\infty} \dfrac{3x+\sin(x)}{x}$

   (b) $\lim_{x\to-\infty} \dfrac{2x+1}{\sqrt{x^2+1}}$

   (c) $\lim_{x\to\infty} \dfrac{1}{x}$