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1. (1 pt) Evaluate the limit

$$\lim_{x \rightarrow \infty} \frac{9x^3 - 8x^2 - 4x}{8 - 11x - 9x^3}$$

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2. (1 pt) Evaluate the limit

$$\lim_{x \rightarrow \infty} \frac{5x + 8}{6x^2 - 3x + 7}$$

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3. (1 pt) Evaluate

$$\lim_{x \rightarrow \infty} \frac{\sqrt{x^4 - 2x^3 + 5}}{3x^2 + 9}$$

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4. (1 pt) Evaluate

$$\lim_{x \rightarrow \infty} \sqrt{x^2 - 1x + 1} - x$$

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5. (1 pt) Determine the infinite limit of the following functions. Enter INF for  $\infty$  and MINF for  $-\infty$ .

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

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

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3.  $\lim_{x \rightarrow 0} \frac{1}{x^2(x + 7)}$

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4.  $\lim_{x \rightarrow 5} \frac{2}{(x - 5)^6}$