LIMITS AT INFINITY

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Name: _____

Evaluate the following limits at infinity.

1. $\lim_{x\to\infty} \dfrac{3x-2}{2x+1}$

2. $\lim_{x\to\infty} \dfrac{4x^3+6x^2-2}{2x^3-4x+5}$

3. $\lim_{x\to\infty} \dfrac{\sqrt{2x^2+1}}{3x-5}$

4. $\lim_{x\to\infty} \dfrac{x+3x^2}{4x-1}$

5. $\lim_{x\to\infty} \dfrac{x^3-x}{x^2-6x+5}$

6. $\lim_{x\to\infty} \dfrac{x^4-3x^2+x}{x^3-x+2}$

7. $\lim_{x\to\infty} \dfrac{1-x^2}{x^3-x+1}$

8. $\lim_{x\to\infty} \dfrac{1+x^4}{x^6+1}$

9. $\lim_{x\to\infty} \dfrac{x-2}{x^2+1}$

10. $\lim_{x\to\infty}\left(\sqrt{9x^2+x}-3x\right)$

11. $\lim_{x\to\infty}\left(x-\sqrt{x}\right)$