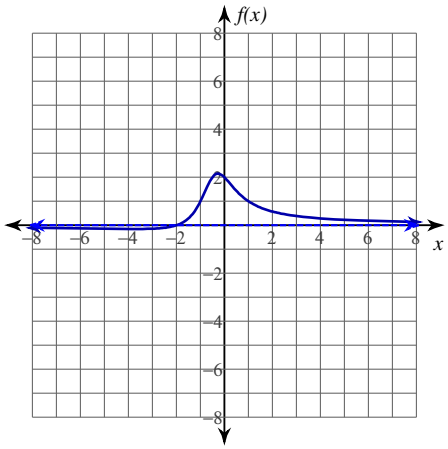
Kuta Software - Infinite Calculus Name_____

Evaluating Limits

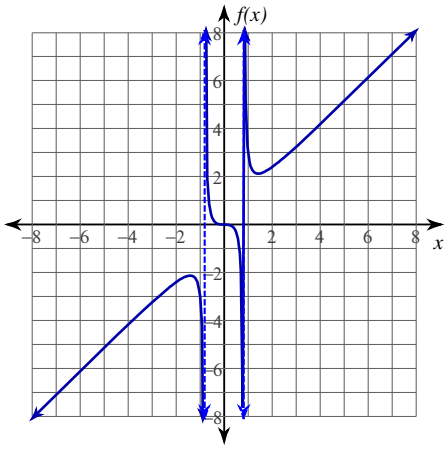
Date_____ Period____

Evaluate each limit.

1) $\lim_{x \to -\infty} \frac{x+2}{x^2+x+1}$

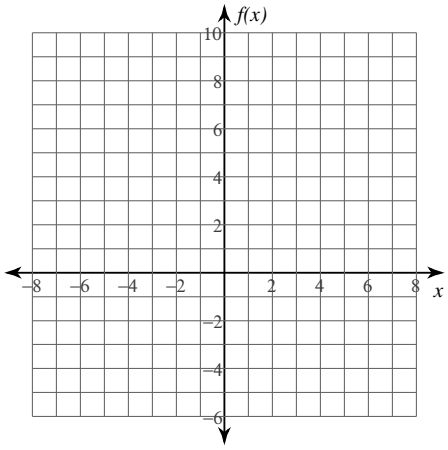


2) $\lim_{x \to -\infty} \frac{3x^3}{3x^2-2}$

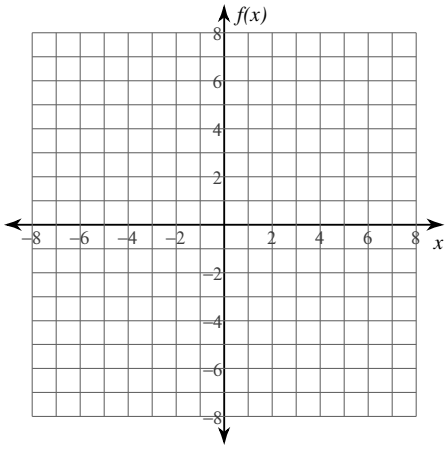


Evaluate each limit. You may use the provided graph to sketch the function.

3) $\lim_{x \to -\infty} \frac{2x^2}{x^2-4}$



4) $\lim_{x \to \infty} -\frac{3x^2}{4x+4}$



Evaluate each limit.

5) $\lim_{x\to-\infty}\left(x^3-4x^2+5\right)$

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

7) $\lim_{x\to\infty}\dfrac{x^3}{4x^2+3}$

8) $\lim_{x\to\infty}\dfrac{x+1}{2x^2+2x+1}$

9) $\lim_{x\to-\infty}\dfrac{\sqrt{2x^2+3}}{2x+3}$

10) $\lim_{x\to-\infty}\dfrac{\sqrt{2x^2+1}}{4x+2}$

11) $\lim_{x\to\infty}\left(-\dfrac{\ln x}{x^4}+1\right)$

12) $\lim_{x\to\infty}\left(-e^{-3x}-1\right)$

13) $\lim_{x\to\infty}\left(e^x-3\right)$

14) $\lim_{x\to-\infty}-e^{-4x}$

15) $\lim_{x\to\infty}\cos\left(2x\right)$

16) $\lim_{x\to-\infty}\dfrac{x}{\cos\left(-3x\right)}$

17) $\lim_{x\to\infty}-\dfrac{2x}{\cos\dfrac{1}{x}}$

18) $\lim_{x\to\infty}x\cos\dfrac{1}{x}$