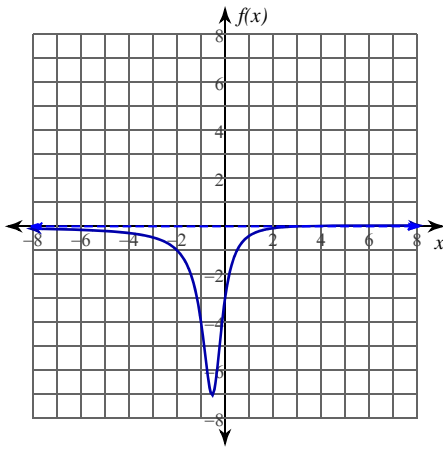


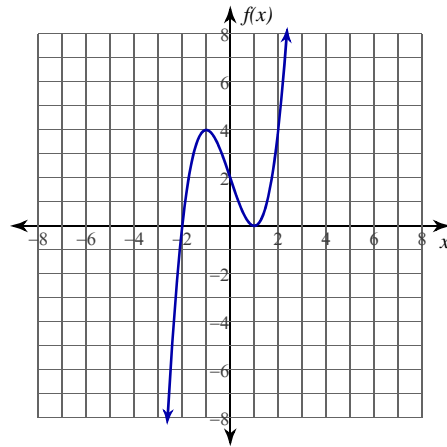
Evaluating Limits

Evaluate each limit.

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



2) $\lim_{x \rightarrow -\infty} (x^3 - 3x + 2)$



3) $\lim_{x \rightarrow \infty} \frac{x}{x+3}$

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

5) $\lim_{x \rightarrow \infty} (x^3 + x^2 - x)$

6) $\lim_{x \rightarrow \infty} (x^5 - 3x^3 + 3x - 1)$

7) $\lim_{x \rightarrow \infty} (x^4 + x^3 - 2x^2 - 1)$

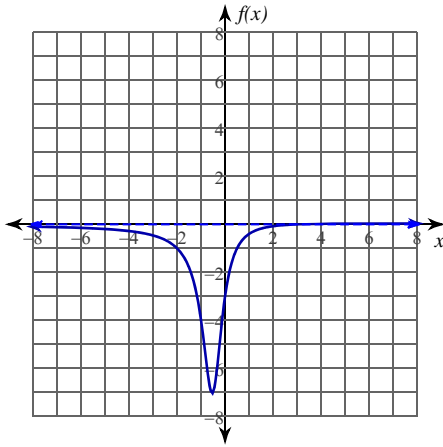
8) $\lim_{x \rightarrow \infty} \frac{-x+2}{x^2+x+1}$

Critical thinking question:9) Give an example of a limit that goes to 4 as x goes to ∞ .

Evaluating Limits

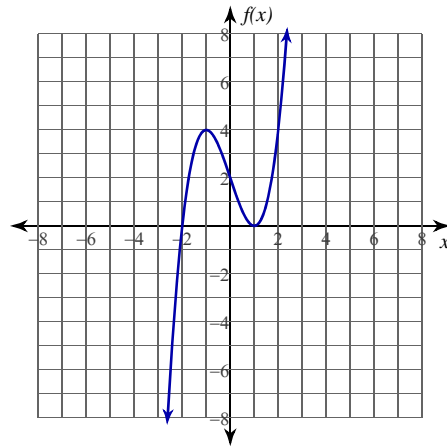
Evaluate each limit.

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



0

2) $\lim_{x \rightarrow -\infty} (x^3 - 3x + 2)$

 $-\infty$

3) $\lim_{x \rightarrow \infty} \frac{x}{x+3}$

1

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

 ∞

5) $\lim_{x \rightarrow \infty} (x^3 + x^2 - x)$

 ∞

6) $\lim_{x \rightarrow \infty} (x^5 - 3x^3 + 3x - 1)$

 ∞

7) $\lim_{x \rightarrow \infty} (x^4 + x^3 - 2x^2 - 1)$

 ∞

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

0

Critical thinking question:

9) Give an example of a limit that goes to 4 as x goes to ∞ .

Many answers. Ex: $\lim_{x \rightarrow \infty} \frac{4x}{x+1}$