

Sketch a graph of $f(x)$ that would meet the following conditions:

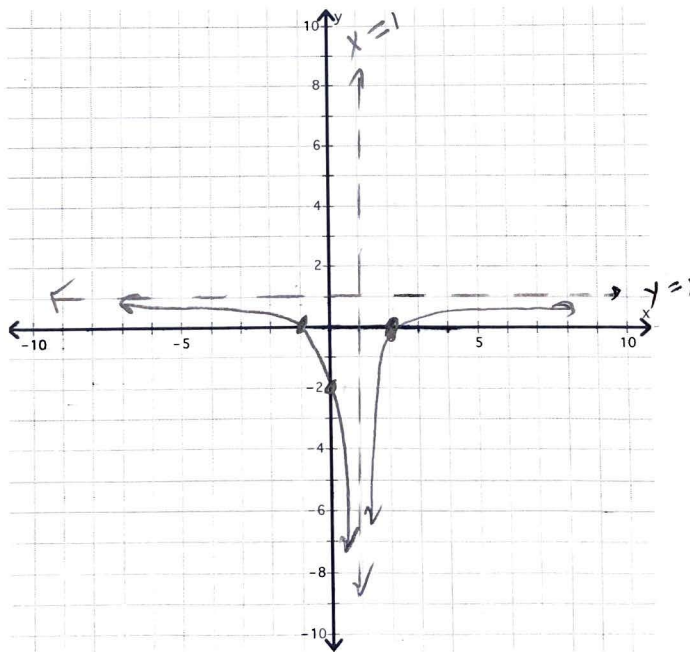
1) $f(x) = 0$ at $x = -1$ and $x = 2$

$$\lim_{x \rightarrow \infty} f(x) = 1$$

$$\lim_{x \rightarrow -\infty} f(x) = 1$$

$$\lim_{x \rightarrow 1} f(x) = -\infty$$

✓Crosses the y - axis at -2



Limits Day 4 HW - Sketching Graphs based on Limits

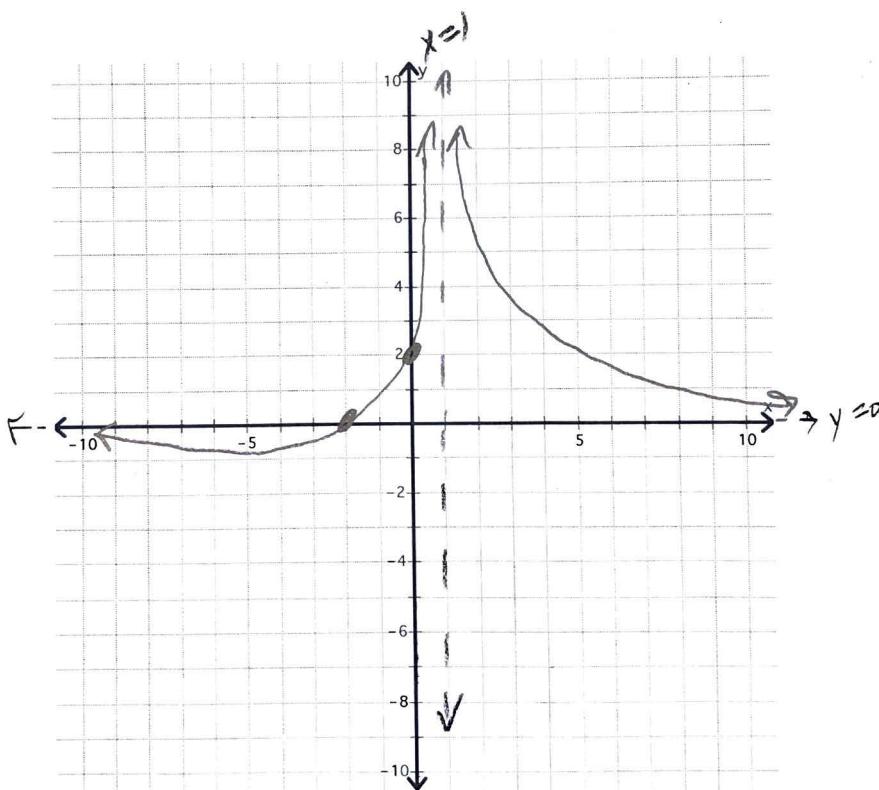
2) $f(x) = 0$ at $x = -2$

$$\lim_{x \rightarrow \infty} f(x) = 0$$

$$\lim_{x \rightarrow -\infty} f(x) = 0$$

$$\lim_{x \rightarrow 1} f(x) = \infty$$

Crosses y -axis at 2



Limits Day 4 HW - Sketching Graphs based on Limits

3) $f(x) = 0$ at $x = -2$

$$\lim_{x \rightarrow \infty} f(x) = 2$$

$$\lim_{x \rightarrow -\infty} f(x) = 2$$

$$\lim_{x \rightarrow -1} f(x) = \text{DNE}$$

Crosses y -axis at 4

$$f(x) = \text{DNE at } x = 3 \text{ and } x = -1$$

