

Name_____

Limits Graphically I.doc

The limit of a function is a fundamental concept in calculus concerning the behavior of that function near a particular input.

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

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

$$x \lim_{x \rightarrow 1^+} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow 1^-} f(x) = \underline{\hspace{2cm}}$$

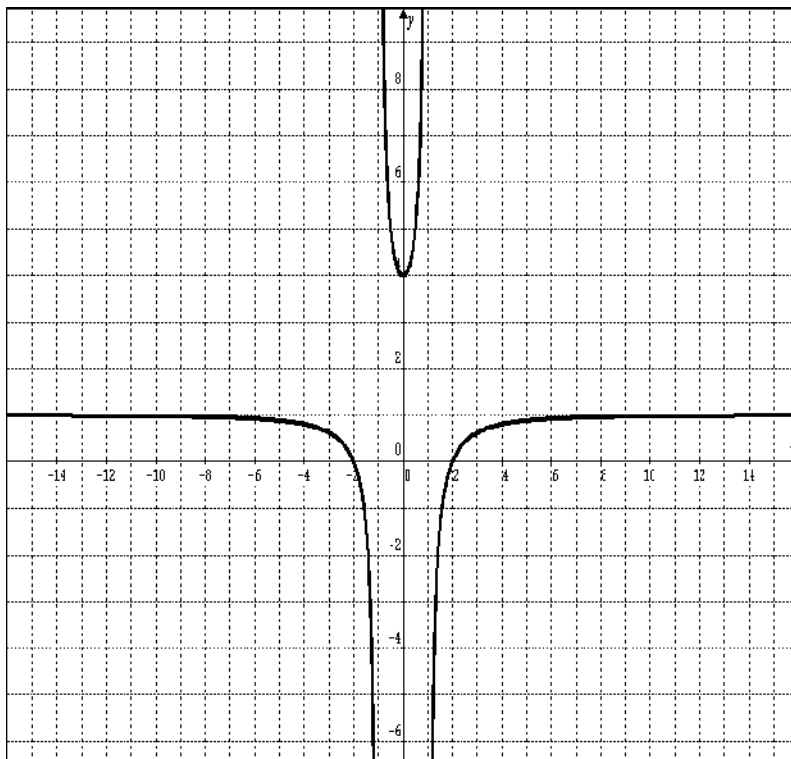
$$x \lim_{x \rightarrow -1^+} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow -1^-} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow 0^+} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow 0^-} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow 0} f(x) = \underline{\hspace{2cm}}$$



$$f(2) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow 2} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow -2} f(x) = \underline{\hspace{2cm}}$$

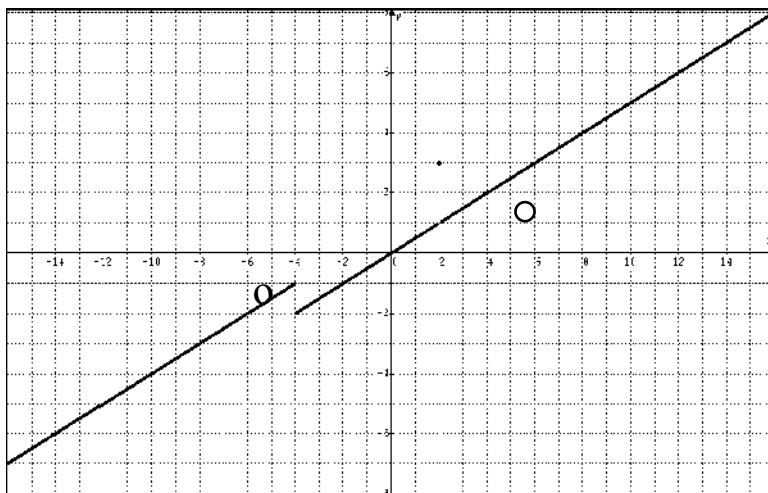
$$x \lim_{x \rightarrow -4^-} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow -4^+} f(x) = \underline{\hspace{2cm}}$$

$$x \lim_{x \rightarrow -4} f(x) = \underline{\hspace{2cm}}$$

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

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



Limits Graphically II

Name: _____

For the graph of the function $y=f(x)$ below, evaluate each of the following.

$$f(-4) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow -4^+} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow -4^-} f(x) = \underline{\hspace{2cm}}$$

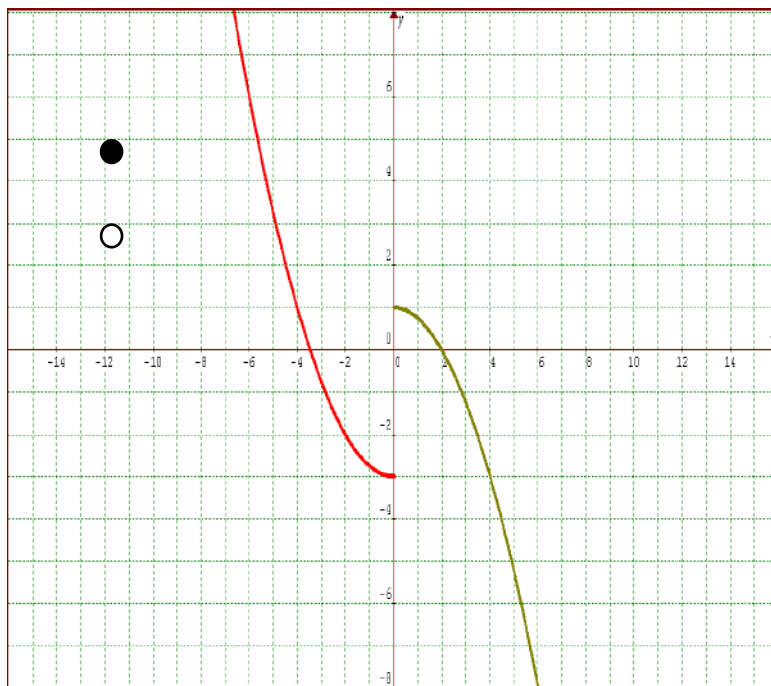
$$\lim_{x \rightarrow -4} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 2} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 0^+} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 0^-} f(x) = \underline{\hspace{2cm}}$$

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



$$\lim_{x \rightarrow 0} f(x) = \underline{\hspace{2cm}}$$

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

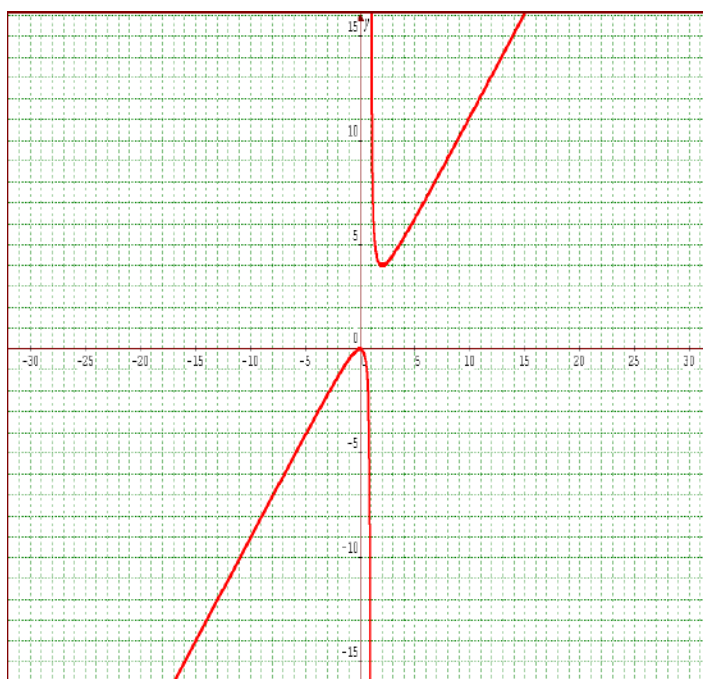
$$\lim_{x \rightarrow 2} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 1^+} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 1^-} f(x) = \underline{\hspace{2cm}}$$

$$\lim_{x \rightarrow 0} f(x) = \underline{\hspace{2cm}}$$

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



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