If $\lim_{x \to c^+} f(x) = \pm\infty$

OR $\lim_{x \to c^-} f(x) = \pm\infty$

Then what does this mean f(x) must have?

If $\lim_{x \to c^+} f(x) = +\infty$ OR $-\infty$

Then VA: $x = c$

If $\lim_{x \to c^-} f(x) = +\infty$ OR $-\infty$

Then VA: $x = c$

If $\lim_{x \to \pm\infty} f(x) = L$

Then What does this mean f(x) must have?

If $\lim_{x \to \infty} f(x) = L$ OR $\lim_{x \to -\infty} f(x) = L$

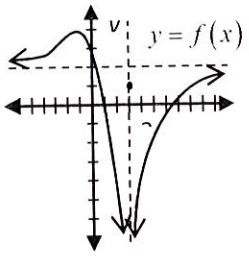
Then HA: $y = L$

For the function f graphed below, find:

(a) $\lim_{x \to 3^-} f(x)$ (b) $\lim_{x \to 3^+} f(x)$

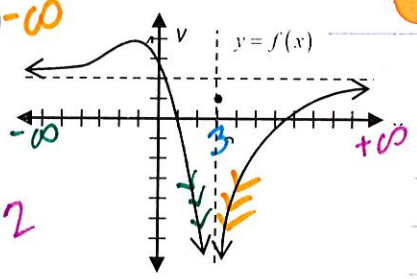
(c) $\lim_{x \to 3} f(x)$ (d) $f(3)$

(e) $\lim_{x \to -\infty} f(x)$ (f) $\lim_{x \to +\infty} f(x)$



For the function f graphed below, find:

(a) $\lim_{x \to 3^-} f(x) = -\infty$ (b) $\lim_{x \to 3^+} f(x) = -\infty$

(c) $\lim_{x \to 3} f(x) = -\infty$ (d) $f(3) = 1$

(e) EB $\lim_{x \to -\infty} f(x) = 2$ (f) EB $\lim_{x \to +\infty} f(x) = 2$