Limits Day 2 5/20

Ex) $\lim_{x\to 3} \frac{x^2-4}{x-3} = \frac{(x-2)(x+2)}{x-3}$ = Doesn't exist

8. $\lim_{x\to 4} \left(\frac{x-4}{\sqrt{x}-2}\right)\frac{(\sqrt{x}+2)}{(\sqrt{x}+2)} = \frac{(x-4)(\sqrt{x}+2)}{(x-4)} = 4$

$\lim_{x\to 0^-} f(x) =$ 1

$\lim_{x\to 0^+} f(x) =$ 3

$f(0) =$ 3

$\lim_{x\to 0} f(x)$ DNE

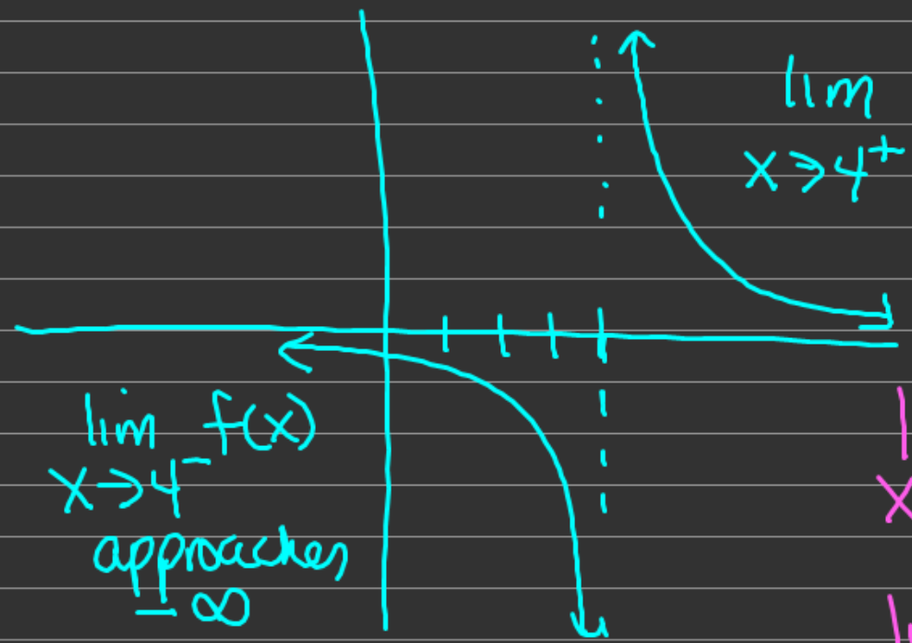
$\lim_{x\to 4^-} f(x) =$ 3

$\lim_{x\to 4^+} f(x) =$ 3

$\lim_{x\to 4} f(x) =$ 3

$f(4) =$ Not Defined

Ex) $f(x) = \frac{1}{x-4}$



$\lim_{x \to 4^+} f(x) =$ approaches ∞

$\lim_{x \to 4^-} f(x)$ approaches $-\infty$

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

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