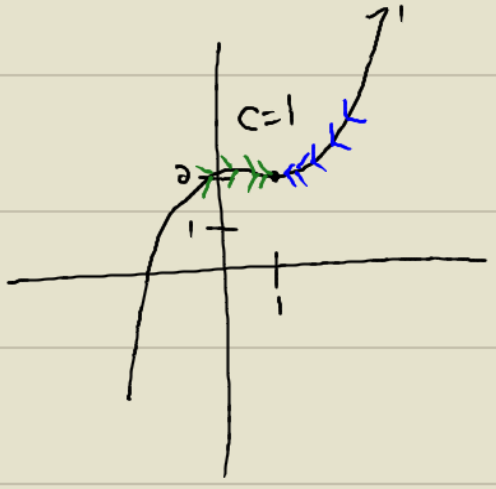
1.



a) $\lim_{x \to c^+} f(x) = 2$ ← RIGHT HAND SIDE

b) $\lim_{x \to c^-} f(x) = 2$ ← LEFT HAND SIDE

c) $\lim_{x \to c} f(x) = 2$

NOTE: FOR A LIMIT TO EXIST, IT WAS TO APPROACH THE SAME VALUE COMING FROM LEFT AND COMING FROM RIGHT

2.

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

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

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

3. $\lim_{x \to 3^-} \frac{-2}{x+3}$

$= \frac{-2}{3+3}$

$= \frac{-2}{6}$

$= \boxed{\frac{-1}{3}}$

4. $\lim_{x \to 5^+} \frac{5-x}{x^2-25}$ (DOTS)

$= \lim_{x \to 5^+} \frac{-x+5}{(x+5)(x-5)}$ (GCF)

$= \lim_{x \to 5^+} \frac{-1(x-5)}{(x+5)(x-5)}$

$= \lim_{x \to 5^+} \frac{-1}{x+5}$

$= \frac{-1}{5+5}$

$= \boxed{\frac{-1}{10}}$