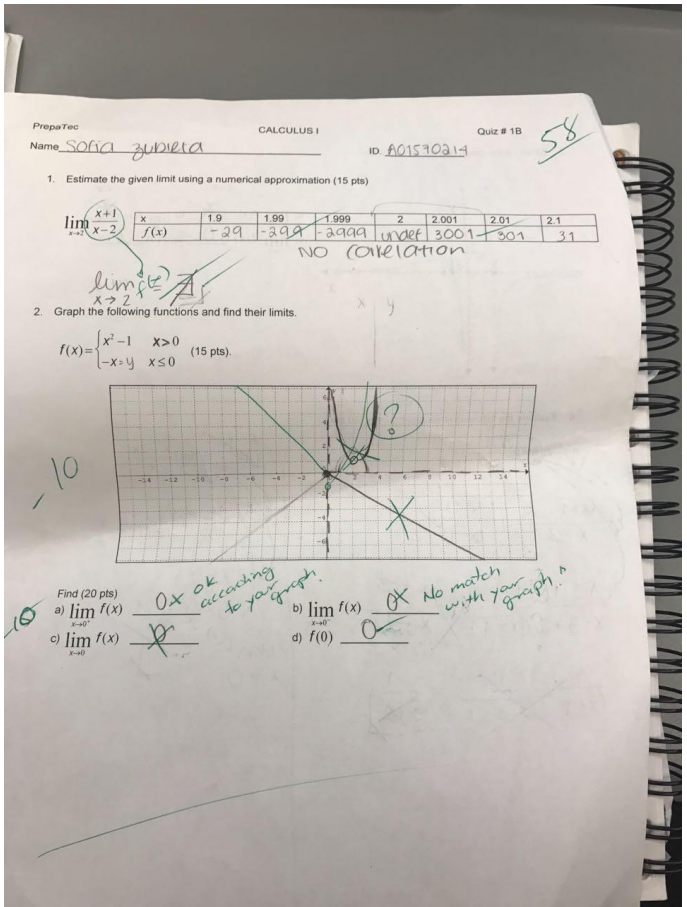
QUIZZES
PRIMER PARCIAL

Quiz #1



PrepaTec CALCULUS I Quiz # 1B

Name Sofia Zubieta ID A01590219 58

1. Estimate the given limit using a numerical approximation (15 pts)

$\lim_{x\to 2} \frac{x+1}{x-2}$

x	1.9	1.99	1.999	2	2.001	2.01	2.1
f(x)	-29	-299	-2999	undef	3001	301	31

NO correlation

$\lim_{x\to 2} f(x)$ DNE

2. Graph the following functions and find their limits.

$f(x)=\begin{cases} x^2-1 & x>0 \\ -x+4 & x\le 0 \end{cases}$ (15 pts).

-10

Find (20 pts)

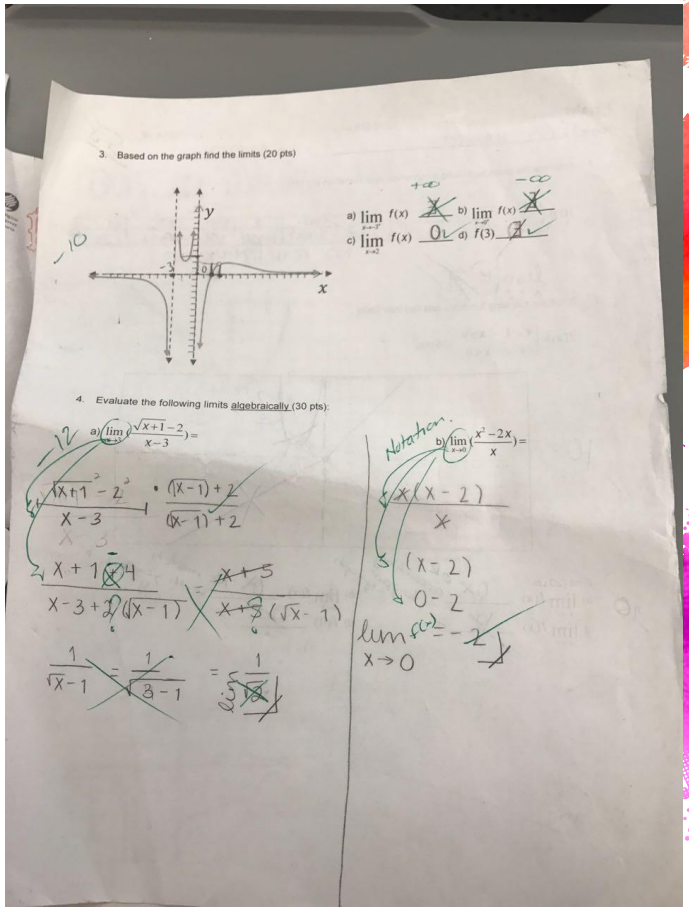
a) $\lim_{x\to 0^+} f(x)$ 0 ok according to your graph.

b) $\lim_{x\to 0^-} f(x)$ 0 No match with your graph.

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

d) $f(0)$ 0

-10



3. Based on the graph find the limits (20 pts)

a) $\lim_{x\to -3^+} f(x)$ +∞ X

b) $\lim_{x\to \infty} f(x)$ −∞ X

c) $\lim_{x\to 2} f(x)$ 0 ✓

d) $f(3)$ 2 ✓

-10

4. Evaluate the following limits algebraically (30 pts):

a) $\lim_{x\to 3} \frac{\sqrt{x+1}-2}{x-3}$ = -12

$\frac{\sqrt{x+1}-2}{x-3} \cdot \frac{(\sqrt{x-1})+2}{(\sqrt{x-1})+2}$

$\frac{x+1-4}{x-3+2(\sqrt{x-1})} = \frac{x-3}{(x-3)(\sqrt{x-1})}$

$\frac{1}{\sqrt{x-1}} = \frac{1}{\sqrt{3-1}} = \frac{1}{2}$

b) $\lim_{x\to 0} \frac{x^2-2x}{x}$ =

Notation.

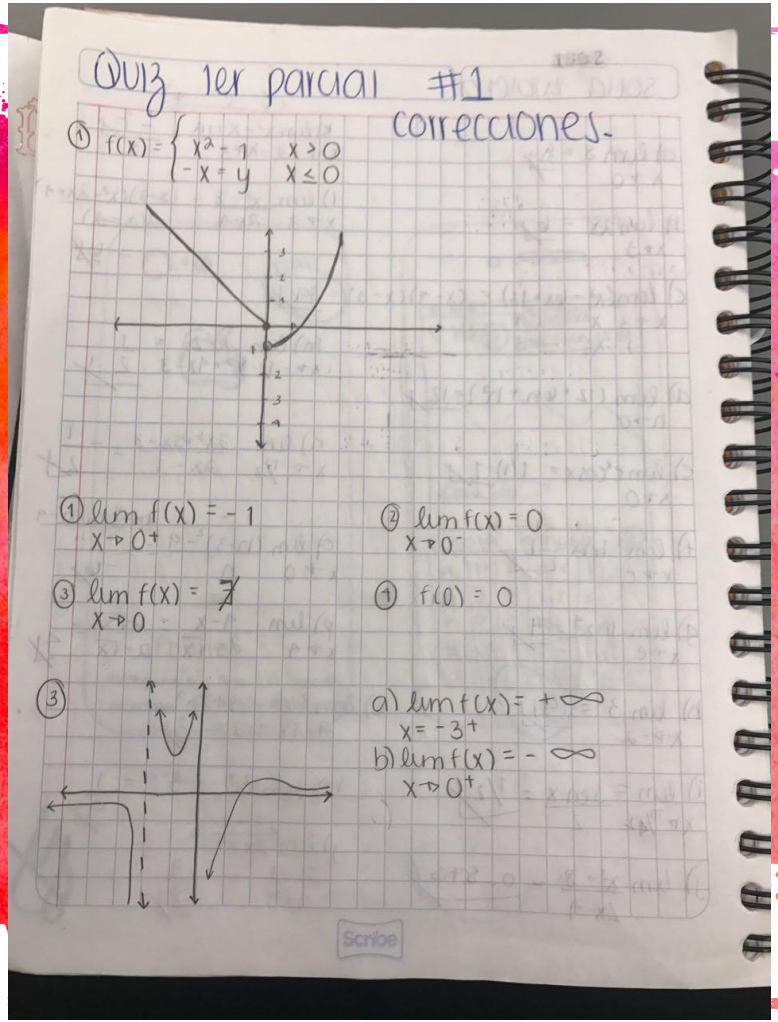
$\frac{x(x-2)}{x}$

$(x-2)$

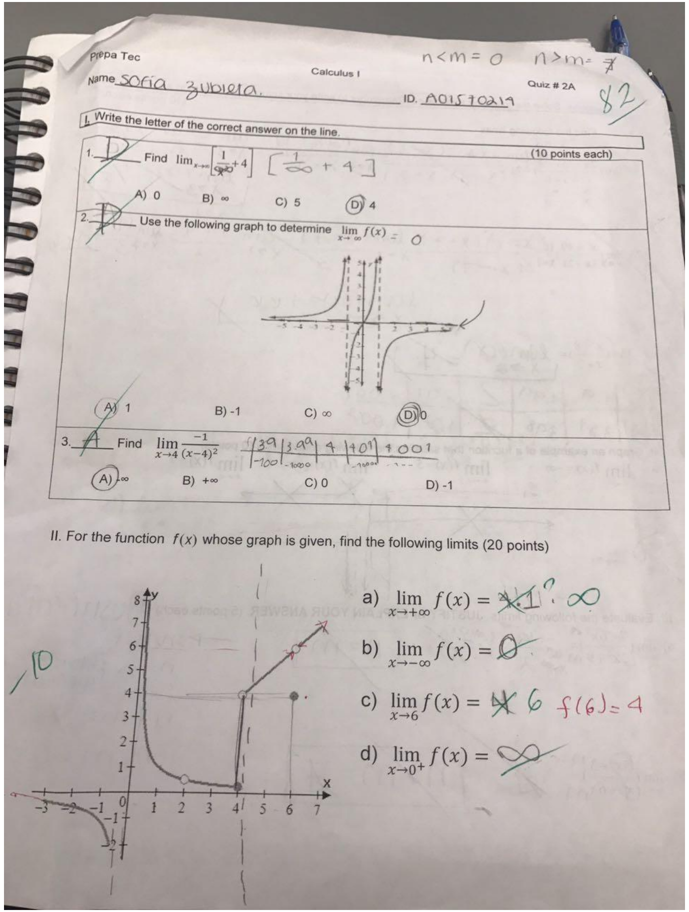
$0-2$

$\lim_{x\to 0} f(x) = -2$ ✓

CORRECTI


Quiz 1er parcial #1
correcciones.
① $f(x) = \begin{cases} x^2 - 1 & x > 0 \\ -x = y & x \leq 0 \end{cases}$
① $\lim_{x \to 0^+} f(x) = -1$
② $\lim_{x \to 0^-} f(x) = 0$
③ $\lim_{x \to 0} f(x) = \not\exists$
④ $f(0) = 0$
③
a) $\lim_{x = -3^+} f(x) = +\infty$
b) $\lim_{x \to 0^+} f(x) = -\infty$
Scribe

Quiz #2



Prepa Tec

Calculus I

Name Sofía Zubieta. ID. A01570219 Quiz # 2A

I. Write the letter of the correct answer on the line. (10 points each)

1. D Find $\lim_{x\to\infty}\left[\frac{1}{x}+4\right]$

A) 0 B) ∞ C) 5 D) 4

2. D Use the following graph to determine $\lim_{x\to\infty} f(x) = 0$

A) 1 B) -1 C) ∞ D) 0

3. A Find $\lim_{x\to 4}\frac{-1}{(x-4)^2}$

A) $-\infty$ B) $+\infty$ C) 0 D) -1

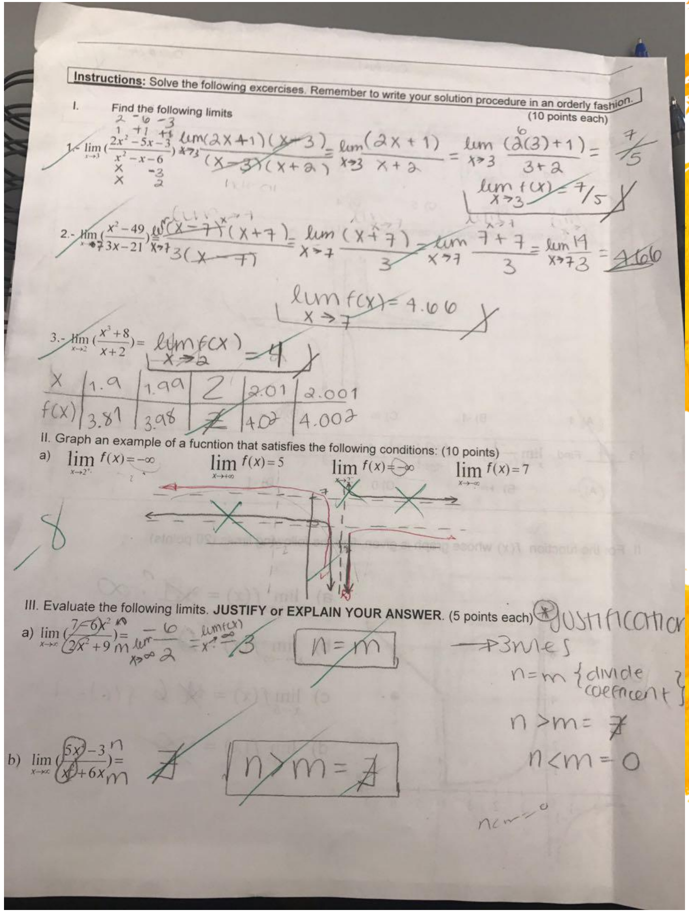
II. For the function $f(x)$ whose graph is given, find the following limits (20 points)

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

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

c) $\lim_{x\to 6} f(x) = 6$ $f(6)=4$

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



Instructions: Solve the following excercises. Remember to write your solution procedure in an orderly fashion.

I. Find the following limits (10 points each)

1.- $\lim_{x\to 3}\left(\frac{2x^2-5x-3}{x^2-x-6}\right)$

2.- $\lim_{x\to 7}\left(\frac{x^2-49}{3x-21}\right)$

3.- $\lim_{x\to 2}\left(\frac{x^3+8}{x+2}\right)$

II. Graph an example of a fucntion that satisfies the following conditions: (10 points)

a) $\lim_{x\to 2^+} f(x) = -\infty$ $\lim_{x\to+\infty} f(x) = 5$ $\lim_{x\to 2^-} f(x) = -\infty$ $\lim_{x\to-\infty} f(x) = 7$

III. Evaluate the following limits. JUSTIFY or EXPLAIN YOUR ANSWER. (5 points each)

a) $\lim_{x\to\infty}\left(\frac{7-6x^2}{2x^2+9}\right)$

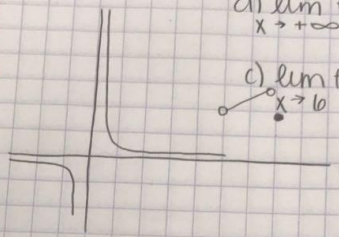
b) $\lim_{x\to\infty}\left(\frac{5x^2-3}{x+6x}\right)$

CORRECTI

Quiz #2 {corrections}

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

c) $\lim_{x \to 6} f(x) = 6$



II. Graph

a) $\lim_{x \to 2^+} f(x) = -\infty$ b) $\lim_{x \to 2^-} f(x) = 5$ c) $\lim_{x \to -\infty} f(x)$

d) $\lim_{x \to -\infty} f(x) = 7$