Math 1A (10:30am -	11:20am)
Quiz 1 Version C	
Fri Jan 14, 2011	

What month is your birthday?
What are the first 2 digits of your address?
What are the last 2 digits of your zip code?
What are the last 2 digits of your DeAnza ID number?

SCORE: ___/30 POINTS

NO CALCULATORS ALLOWED

SHOW PROPER ALGEBRAIC WORK AND USE PROPER NOTATION

YOU DO NOT NEED TO SHOW THE USE OF THE LIMIT LAWS UNLESS SPECIFICALLY ASKED FOR

State the complete definition of "vertical asymptote".

SCORE: ___/2 POINTS

SEE 7:30 VERSION A

State the Squeeze Theorem.

SCORE: __/2 POINTS

SEE 7:30 VERSION A

Let
$$f(x) = \begin{cases} 3x+17, & \text{if } x < -3 \\ 5-x, & \text{if } -3 \le x < 2 \\ 11-4x, & \text{if } x > 2 \end{cases}$$

SCORE: ___ / 7 POINTS

[a] Is f(x) continuous at x = 2?

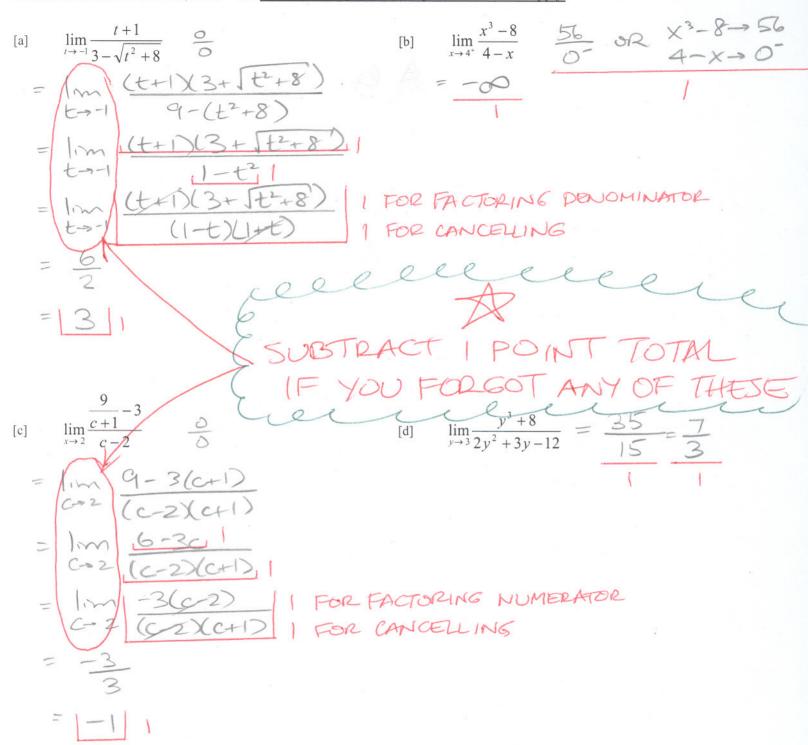
If yes, show that all three conditions of continuity are satisfied. If no, show that at least one condition is not satisfied.

[b] Is f(x) continuous at x = -3?

If yes, show that all three conditions of continuity are satisfied. If no, show that at least one condition is not satisfied.

Types, show that all three conditions of continuity are satisfied. If no, so
$$\frac{1}{2} = \frac{1}{1} = \frac{1}{1}$$

The answer should be a number, ∞ or $-\infty$. Write DNE only if the other possibilities do not apply.



The graphs of f and g are shown on the right.

SCORE: ___ / 5 POINTS

Find $\lim_{x\to 2} [5f(x) - xg(x)]$, showing the proper use of the limit laws to justify your answer.

