MAT 101 Calculus I
Homework 6

Basic Information

This assignment is due on Gradescope by **1:30 PM on Tuesday, September 24**.

Make sure you understand MHC honor code and have carefully read and understood the additional information on the class syllabus. I am happy to discuss any questions or concerns you have!

A major component of this class is helping you understand *why* the mathematics you use works the way it does. To that end, make sure you show all your work as you will be graded on the *process* you use, not just your final answer. And if a question asks you to explain why something is true, be sure to answer that part of the question in complete sentences. Remember, answers without any work will receive 0 points.

The homework problems will be graded anonymously so please do not put your name or other identifying information on the pages.

Turn-In Problems

1.7: 8, 12. (briefly explain your answer to both)
1.8: 6, 24, 56 (for the last problem, use the limit laws to briefly justify each step)

6. Draw a graph of a function that is continuous everywhere except not at $x = -3$ and $x = 1$.

7. Find $\lim_{x \to 1} \dfrac{x^2 + 3x - 4}{x^2 - 1}$. Very briefly say how you found your answer (or show all your algebraic work).

Additional Problems (to do on your own, not to turn in)

1.6: 37
1.7: 7, 13
1.8: 7, 23, 55