Basic Information

This assignment is due on Gradescope by **3:00 PM on Tuesday, February 17**.

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

    1.3: 34
    1.7: 6 (briefly explain your answer)
    1.8: 2, 6

For the next two problems, use limit properties (Theorem 1.2 page 60) to find the limit. For credit you need to state which property you are using at each step.

5. $\lim\limits_{x \to 2} \dfrac{x - 5}{5 + 2x^2}$

6. $\lim\limits_{x \to -1} (x^2 + 4)(x - 1)$

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

8. Find $\lim\limits_{x \to 1} \dfrac{x^2 + 3x - 4}{x^2 - 1}$. 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)

1.3: 35
1.7: 7
1.8: 1, 7, 23