

Read the New York Times article *Change We Can Believe In* by Steven Strogatz. Write (type) an at least one single-spaced page response to the article. Writing a response means that you should use ideas in the articles as your starting point and add your own personal reflections in a way that builds a cohesive statement of your stance about some aspect(s) of the articles and compares and contrasts ideas from the article and your own calculus learning. This may include comparing perspectives from other sources and supporting your stance with your own experiences or additional research. Use a standard font such as Times New Roman or Arial at a maximum size of 12pt and do not add fluff to get to this length. This assignment will be graded holistically and thus should be written with proper grammar and punctuation. It's due at the beginning of class on **Friday, October 31 🍂**.

Questions you should address in your cohesive response

- How did this article help you understand the bigger picture of calculus?
- How did this article help you understand the concept of a derivative?
- What are some examples from your life of things with a positive derivative? What about things with a negative derivative? In the examples you gave, what's happening with the second derivative?
- Some examples of where derivatives are used in different fields were given in the article. Where does the concept of a derivative appear in your major or in some other interest you have? Explain. Find specific examples and show how rates of change are involved. Note: this question requires some research—don't use that as an excuse to skip it—so you will need to cite your sources.
- Where do max/min problems occur in your life?
- What do you think of Professor Strogatz's conclusion "Nature somehow knows calculus"?
- How would you explain the concept of a derivative to someone who knows no calculus, using this article and/or your knowledge of derivatives?

Note: As always, I will consider giving extra credit for creative responses (i.e., other than a single-page paper). If you choose a more creative approach, just make sure that it still contains a sufficient amount of information.