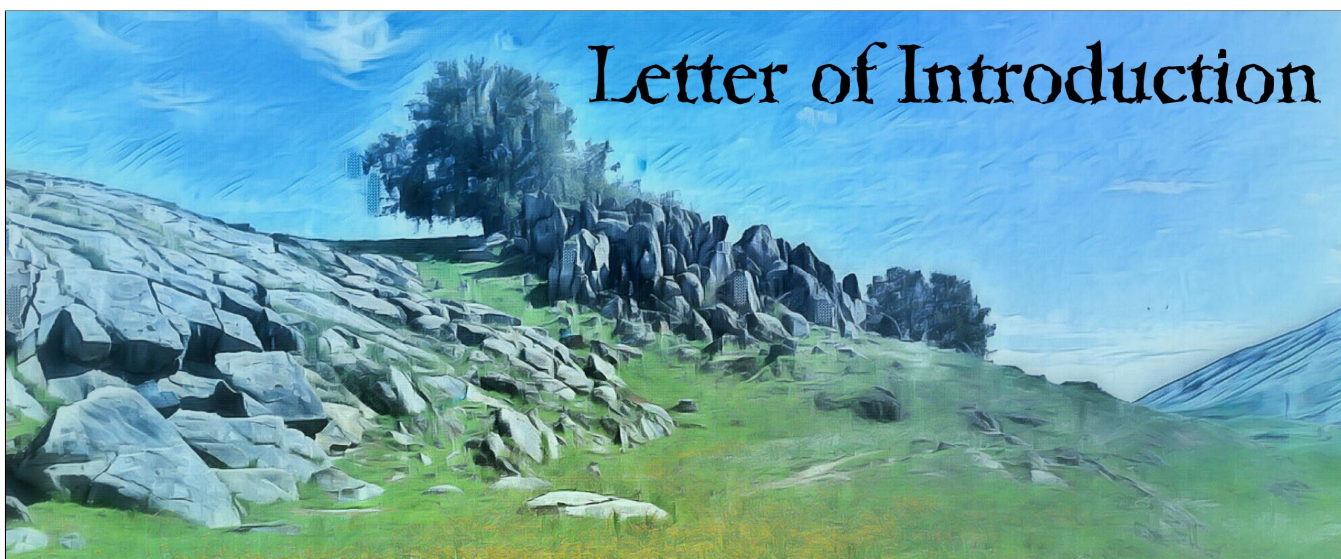


TEACHING PORTFOLIO



PRIVATE MATHEMATICS
INSTRUCTION EDITION

Luke Denton



To Whom It May Concern,



Thank you for your time and interest, and please allow me to introduce myself. My name is Luke Denton, and I have for the last couple of decades successfully offered my services as a private mathematics instructor. With both my undergraduate and graduate degrees in mathematics, as well as a single subject teaching credential, I am highly qualified for the role of helping turn **your** math problems into **our** math problems. In addition to my many degrees and credentials, (which also include a double minor in both physics and astronomy), I have years of experience in both classroom instruction and self employment as a private mathematics instructor. As such, I have successfully taught a wide range of students, from the remedial to the future STEM professional. I am technologically savvy, and I am always both willing and able to regularly incorporate professional grade educational technologies such as

LaTeX, Mathematica, and GeoGebra into the delivery of services as appropriate. With a multitude of personally created and classroom tested instructional materials such as lesson plans, tests and even extra credit enrichment assignments already completed for a wide variety of standard mathematics courses such as Algebra, Calculus and more, I can, and will, be ready day one for everything your private mathematics instruction needs will require. Rest assured, when you pay for my services, you don't get just another standard issue math tutor, you get the premium product of an actual, fully qualified mathematics teacher with decades of instruction experience.

As far as how I came to be a private mathematics instructor, it all began in sixth grade. In one of those twists of fate, my otherwise obvious enthusiasm for astronomy led my sixth grade teacher to

suggest I put together an hour or so long lesson on what I had taught myself. After a brief discussion and a little reflection on what exactly that would entail, I decided to take her up on the offer. And so began my teaching career, with an hour long presentation about the planets and the solar system. But it was the two hours she let me have to answer questions from the class, and the genuine, actual, fun I had doing it that really sold me on a future in teaching. After that, I was off and running as they say. With some new found direction and purpose, I dedicated myself fully to the study of science and mathematics. With the God given talent I discovered I'm blessed with, I began to accelerate my studies. By taking original credits summer school courses in geometry and trigonometry to keep skipping ahead, I took, and passed, my very first Calculus class my sophomore year of high school. Which is also when my love of mathematics officially passed up my love of science. Not that I ever stopped loving physics and astronomy (as my officially granted minor degrees can attest), but it was the irresistible allure of the infinite and the infinitesimal and all things calculus that sealed my fate as a future mathematics major.



After a stretch at the community college for the general education and such (and my last couple of years playing the french horn, which I also really enjoyed), I was finally at Fresno State. With my love of all things calculus fully intact, I was living the dream of being a full time mathematics major. Given my history of going above and beyond, not surprisingly I went well above and beyond the degree requirements. And so, more or less for the fun of it, by the time I graduated with my Bachelor's degree I had taken pretty much every calculus class they had available. Differential Calculus, Integral Calculus, Vector Calculus, Ordinary Differential Equations, Partial Differential Equations, a full year of Advanced Calculus, and of course, my two most favorite kinds of calculus, Complex Analysis and Differential Geometry. And even that wasn't enough. Many a physics course also fed my insatiable appetite for ever more calculus. Newtonian Mechanics, Electromagnetics, Quantum Mechanics, Relativity, Optics, Astrophysics, and Mathematical Physics, . . . just more fun for me.

But I didn't get a degree in calculus, I got a degree in mathematics. And along the way I learned to love it all. How abstract algebra can unlock the power of symmetry, and its surprisingly fascinating applications, like cryptography and error correcting codes. Linear algebra and how vector spaces can unleash the full power of science. The almost impossibly elegant mathematics of the complex numbers, and how so seemingly a basic premise as $\sqrt{-1} = i$ can connect so many supposedly unrelated fields of mathematics. And of course I furthered also my love of geometry. Differential Geometry, compass and straight edge constructions, models of non-euclidean geometries, topological theorems, my beloved surfaces of constant negative curvature, Klein bottles, and higher dimensional polyhedra are all still some of my favorite things to think about. Even the probability and statistics started to grow on me.

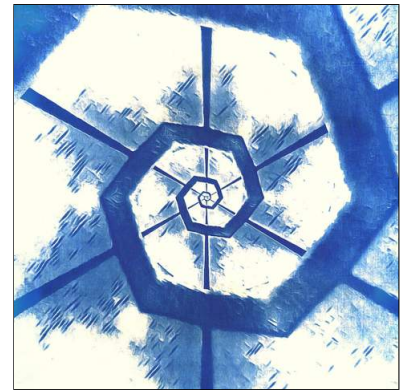


After getting my Bachelor's degree, I went to graduate school and began working on my Master's degree in mathematics. Some of my happiest memories are from that time. The challenge of advanced mathematics, while at times frustrating, ultimately proved a rewarding and worthwhile experience. Most importantly, the so-called "mathematical maturity" finally began to take hold. I began to understand on my own. I began to be sure the proof was right without needing the professor to tell me if it was or was not. My confidence in my abilities as a mathematician grew by leaps and bounds. As advertised, the graduate student had become the master of mathematics. Two years flew by, and next thing I know, I'm working on my final Master's thesis in complex analysis. After a

successful oral defense, I was officially a graduate degree holding professional mathematician, my mind truly opened to the infinite expanses of all things mathematics.

From there, given my long established love of teaching, not surprisingly I went ahead and rounded up myself a valid single subject teaching credential in mathematics. As a nice full circle bonus, I had the the pleasure of doing my final student teaching with my old high school Calculus teacher.

And just like that, I was also a fully qualified math teacher. Between my credential and many college degrees, I am a highly skilled, professionally trained mathematics instructor who can easily handle the task of teaching anything from middle school mathematics to the college calculus, and everything else in-between. Whether your math curriculum be classical, common core or customized, I promise you my number one priority is always my students and their success.



As far as where things go next, I have always had plans to go back for that second Master's degree, this time in education, curriculum and instruction specifically. And after that, who knows. Maybe I go back and get that Master's degree in physics I still dream of doing. Or, with two (or more) Master's degrees to my name, maybe I just roll over into a Doctorate in education program, leaving no doubt about my passion and dedication to the success of the next generation of learners. Time will tell, but for now I know one thing for sure. That I am always ready, willing, and able to be the best math teacher I can be for you, my valued customer. So lets work together and make **your** math problems **our** math problems.

Sincerely, Luke Denton



Contents

Cover Page	1
Letter of Introduction	2
Contents	5
Frequently Asked Questions	6
Excellence and Expertise	9
The Art of Mathematics	

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