

## Infusing Math History into your Math Class

EDU 5900 section 33 Summer 2021

### Requirements for All Students:

- ✚ Find 2 U-Tube videos each of which is about the accomplishments of a Mathematician that are relative to a topic that you will be teaching next year; submit a brief description (*one or two sentences for each*)
- ✚ Pick three topics that you teach or will be teaching this next year and design a segment of each lesson, along with the lesson topic and goals, and give a historical perspective or leading mathematicians and their contributions to the development of that topic.
- ✚ Select a mathematician from history (who was or was not included in the history found in our discussions) and write a short (at least 1 full page) historical essay on that person with emphasis on their contributions to mathematics.
- ✚ Research the many different proofs of the Pythagorean Theorem and write two different proofs you found or create a new one you think is unique.
- ✚ Complete all class activities

The History of Mathematics can be an interesting feature for some students. First we will look through decades of Mathematical accomplishments and important mathematicians across the world and from different cultures. Then we will look for places in our curriculum where historical facts and biographies may be helpful to the students in your classes.

Topics will include:

Mathematics in Prehistoric Times, Sumerian/Babylonian Mathematics, Egyptian Mathematics, Greek Mathematics, Hellenistic Mathematics, Roman Mathematics, Mayan Mathematics, Chinese Mathematics, Mathematics from India, Islamic Mathematics, Medieval European Mathematics, 16<sup>th</sup> Century Mathematics, 17<sup>th</sup> Century Mathematics, 18<sup>th</sup> Century Mathematics, 18<sup>th</sup> Century Mathematics, and 20<sup>th</sup> Century Mathematics.

Specific Mathematical Concepts as they developed throughout History will include the development of such topics as they evolved through History as:

The Pythagorean Theorem, development of numeration, algebra, geometry, calculus, computer programming and technology, number theory, probability, statistics, trigonometry, number systems, combinatorics, set theory, logic, and Boolean algebra.