

Some of you have asked for suggestions or examples of papers submitted in the past for Math 44 or Math 46. The papers below were submitted in one or the other of these classes. Most would work for either class. They may give you some ideas for your next paper, but mostly they show the wide range of possibilities.

“Like Math to My Ears: an Essay on Math and Music”

Sources: B. Benward, *Music in Theory*, and Rachel Hall, *The Sound of Numbers* (ebook)

Essay on Common Core Standards

Source: J. S. Kendall, *Understanding Common Core State Standards* (ebook)

Essay on mathematical instincts

Source: Keith Devlin, *The Math Instinct*

Essay on understanding of fractions

Sources: K.K. MacCormack, “Making Fractions Meaningful,” NCTM Teaching Children Mathematics

“Unpacking Referent Units in Fraction Operations,” NCTM Teaching Children Mathematics

P. Davis and R. Hersh, *The Mathematical Experience*

“Street Mathematics”

Source: *Street Mathematics and School Mathematics*, by T. Nunez et al.

“Women and Mathematics”

Sources: *She Does Math!*, by M. Parker

“How Stereotypes Impair Women’s Careers in Science,” by A. G. Greenwald, PNAS, 2014

Essay on barriers, stereotypes, and how women and girls are kept away from mathematics

Source: *What’s Math Got to Do with It?*, by Jo Boaler

Essay on game theory

Source: *Rock, Paper, Scissors: Game Theory in Everyday Life*, by Len Fisher

Essay on flexagons

Source: *Hexaflexagons, Probability Paradoxes, and the Tower of Hanoi*, by Martin Gardner

Essay on mathematical magic

Source: *Magical Mathematics: The Mathematical Ideas that Animate Great Magic*, by Persi Diaconis and Ron Graham

“Tessellations”

Sources: “Tessellations by Polygons in Mathematics Education” by Lucia Ilucová

“Extraordinary Non-periodic Tiling that Enriches the Theory of Tiles,” by Martin Gardner, in *From Penrose Tiles to Trapdoor Ciphers*.

Essay on mathematics and solving crimes

Source: *The Numbers behind NUMB3RS: Solving Crime with Mathematics*, by Keith Devlin