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Tyler J Markkanen* (tmarkkanen@springfieldcollege.edu), Department of Mathematics, Physics, and CS, Springfield College, 263 Alden Street, Springfield, MA 01109-3797. *The “mathemagical” classroom.*

Math-based magic tricks provide a way to incorporate rich and engaging activities in the classroom. In this talk, we will demonstrate a variety of these “mathemagic” tricks. These include tricks in which the magician miraculously predicts a secret number chosen in advance by an audience member. Such guess-my-number tricks use the sums of digits and special cards that exploit the properties of combinations and binary numbers. Other tricks involve predicting a card at a seemingly random location in a deck of cards. Here, high school algebra can be used to prove why the magic tricks work, giving an opportunity for students to discover the proofs for themselves. Finally, we will briefly discuss how some students have responded to classroom activities that combine math and magic. (Received September 20, 2016)