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Incoming freshmen at The United States Military Academy are screened and evaluated via a combination of SAT Scores, math performance in High School, placement exams, and time since last math course. This screening places students in the core, the advanced, or the developmental mathematics curriculum. Each year, approximately 5% of incoming freshmen are placed in the developmental mathematics curriculum. This curriculum combines precalculus with "just in time" mathematical modeling and introduction to calculus to prepare the student for the rest of the core math curriculum and the engineering classes they will encounter at West Point. Many of the students in the developmental program have problems with their confidence in mathematics and being placed in a "developmental" mathematics class can be very deflating. In an effort to nurture creativity, critical thinking and to boost confidence, we have introduced the Rubik's Cube into the classroom. We will discuss our findings of how teaching the Rubik's Cube to cadets in the developmental math program has positively impacted their confidence, their learning, and their overall performance at the United States Military Academy. (Received September 10, 2008)