This action research study investigated a unit on solving algebraic equations in two 8th grade Pre-Algebra classes. Within this unit, I analyzed the importance of homework and practice, as well as various methods of practice. I found a strong relationship between consistent practice and success with solving algebraic equations. I also found that having the students write out the process and the ideas behind solving equations led to much higher scores. Along with practice, I looked at the impact of students’ number sense on their ability to solve equations. I found that students’ struggles with integers, fractions, and decimals prevented many students from correctly solving algebraic equations. While a majority of my students showed an understanding of the algebraic concepts, they still solved many problems incorrectly because of problems with number sense. These limitations often could be linked with a low self-perception of their abilities within mathematics. As a result of my research, I plan to incorporate more writing into my class. I also plan to spend more time early in the year addressing weaknesses with numbers sense. On a larger scale, addressing elements of number sense more at the lower grades may lead to greater success for students when they reach the grades that require a consistent use of that number sense to solve algebraic equations.