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**Students' equation understanding and solving in Iran.**

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Summary: The purpose of the present article is to investigate how 15 year old Iranian students interpret the concept of equation, its solution, and studying the relation between the students' equation understanding and solving. Data from two equation-solving exercises are reported. Data analysis shows that there is a significant relationship between understanding and solving equation. The results indicate that students' understanding of equation has, basically, been shaped by their experiences in arithmetic and students usually have not any perception of equations and real world problems. Moreover, the study shows that students rarely paid any attention to the equality sign and the use of operators in both sides of the equation.

*Classification:* H33

*Keywords:* understanding equation; simplification in equation; standard forms; variable

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