A Journey Through Time:

A Contemporary Examination of Ancient Egyptian and Babylonian Problem Solving

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Abstract

This study was created and performed with the intention of potentially finding a link between the problem solving strategies used by ancient Egyptians and Babylonians to those used in modern times by high school students. To investigate that possibility, 10 students, all participating in the Summer Ventures program, were tasked with completing a problem set consisting of 8 ancient mathematical challenge problems, 4 from the Rhind Mathematical Papyrus(an ancient Egyptian document), and 4 Babylonian problems from a variety of sources. 8 of the original 10 completed that problem set and were then asked to take a short survey in which they rated the problems on difficulty, explained their approaches to solving the 8 problems, and gave some general information on their academic background. Upon analysis of the work done by the students, it was clear that for most of the problems, a distinct similarity was present in at least the thought processes of the students when compared to the methods of old. From volumes of cylinders and weights of stones to the quadratic formula and systems of linear equations, the significance of ancient mathematical advancements is pronounced, to say the least. Although techniques for basic arithmetic operations were vastly different, the underlying principles involved in the completion of these problems show the clear influence of ancient Egyptian and Babylonian mathematics on today's education in topics of algebra and geometry.