Development of an Automatic Answering System to Arithmetic Questions

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Nowadays, there has been a huge interest in answering the arithmetic questions expressed in Natural Language. Although there are some useful researches in solving word problems, there are still some limitations since the answers of the Math Word Problems (MWP) cannot be easily obtained with the approach of keyword and/or pattern matching. According to this motivation, an approach to generate an equation from the problem and form a solution is proposed. The aim of this proposed work is to implement an Automatic Question Answering System that can operate operations between numbers for the elementary word problems. The system is implemented with the unit solving graph and the arithmetic solver. As the system is resulted the equation along with the solution, an elementary student can gain many benefits from this. And the system is tested and evaluated the benchmark dataset from ARIS system (Hosseini et. al., 2014). The system is able to solve 83.55% of the benchmark dataset and outperforms the ARIS system by over the accuracy of 7%.