

Algebraic strategies for predictions in elementary mathematics education

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Algebraic thinking and reasoning is the process in which we generalize mathematical ideas from a specific set of instances and the conclusion of the generalization is represented in a different way suitable to students' age. The importance of algebraic thinking is a challenge to implement it and to demonstrate it in practical examples. We have chosen the patterns as an initial step in boosting and developing the skills of algebraic and mathematical thinking among students in general. In this regard, we will present several examples of different types of patterns of shapes and numbers and ideas about their treatment by elementary school students. If you create a working atmosphere in which students are curiously involved, they can reveal the rules that lie under the patterns, they can classify the patterns in order to continue the pattern and to generalize the rule. Step above the generalization is the detection of the functional dependence.