

DETERMINE THE MISCONCEPTIONS OF 6TH GRADE STUDENTS IN MULTIPLICATION AND DIVISION OF DECIMAL NOTATION

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Abstract

The purpose of this study is to determine the misconceptions of 6th grade students in multiplication and division of decimal notation. The study group is composed of 32 6th grade students attending a public school in 2016-2017 academic years in the European-side of Istanbul. In the study group, data were collected by the "multiplication and division operation test in decimal notation" consisting of 11 open-ended questions and the "multiplication and division problem test in decimal notation" consisting of 4 open-ended questions. A mixed method involving both qualitative and quantitative data were used in the study. Quantitative data were analyzed as frequency and percentage. Qualitative data were obtained from student's written data and interviews made with students. At the same time, qualitative data were used to support quantitative data. According to the findings of the study, it has been determined that the students have various misconceptions in the multiplication and division of decimal notation. In the case of problem questions, it was determined that they have difficulty in deciding which operation to perform. Several suggestions were made to the researchers in the light of obtained findings.

Keywords: Misconception, decimal notation, multiplication and division of decimal notation.