# Analysis Students Abilities in Completing Mathematical Problems Dimension Three in Junior High School

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# **Abstract**

Problems by junior high school students in learning mathematics is when solving math problems. Then conducted research aimed to find out the types and causes of errors made by students especially when completing mathematical questions on the inner circle and outer circle triangle to find alternative solutions and overcome the causes of the students' errors. The subjects of this study were students of class VIII5 junior high school 5 Siak Hulu and totaling 36 people. This study uses a qualitative descriptive method. Data analysis techniques are descriptive analysis techniques. The data collection method used is the test method. Based on the results of the study, there were still many students who made mistakes in solving math problems in the subject of inner circle and outer circle of triangles, the types of errors are: misconceptions, principle errors, and operating errors in which the most common mistakes are the misconceptions of painting the inner circle and the outer circle of the triangle with the number of

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errors 60 and the percentage of 44.44%. 54 and a percentage of 40%, and a principle error of 21 and a percentage of 15.55%.

# Keywords

Dimension Three, Error Analysis of Students, Mathematical Problems, Geometry and inner circle of the outer circle of the committee.

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# **Biographies**

**Rahmi Wiganda Elastika** born in pekanbaru, October 30, 1993. I am the third child of three brothers. I was born by two parents who are very hard working, I am very proud to have them and currently I am studying Master's Program in Mathematics at Padjadjaran University Bandung.

**Zulkarnain** is a lecturer in the Department of Mathematics, Faculty of teacher training and science, Universitas Riau, Indonesia. Currently working in Riau University and Islamic University of Riau.

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**Abdul Talib Bon** is a professor of Production and Operations Management in the Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia since 1999. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He's bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He had published more 150 International Proceedings and International Journals and 8 books. He is a member of MSORSM, IIF, IEOM, IIE, INFORMS, TAM and MIM.