

# Ethnomatematics: Analysis of Geometric Shapes in Fishing Nets and Their Implementation in the Secondary Education Curriculum.

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- **Abstract:** Learning based on local wisdom can teach students to always remember and focus on real situations or circumstances. With concrete problems and situations, students will be more challenged to find solutions rationally and critically. Efforts to introduce education based on local wisdom to all students at various levels cannot be implemented optimally without support from various parties, starting from the central government, regional education, teachers at schools, local communities and parents at home. The implementation of a culture based on local wisdom as a learning resource for students is expected to solve the existing problems in essential mathematical concepts as well as being able to show the ideas and arguments related to the concept of a topic at school and understand the essence of culture. It should be noted that the field of ethno-mathematics study in mathematics learning includes all aspects, one of which is the activities of traditional fishing communities on the north coast of Cirebon. Researchers took the location in Bondet village, Gunung Jati Sub-district, Cirebon Regency. This village is a traditional fishing area in which the uses traditional fishing gear exist as wel. In addition, there are many cultural activities carried out by coastal fishing communities in their daily life. In this study, the subject is addressed to the representatives of several coastal fishing communities in Bondet Village, Gunung Jati Subdistrict, Cirebon Regency, who know well and are skillful in the process of making fishing nets. Research data analysis was carried out through qualitative approach. The data are obtained from the results of observations, interviews, and documentation adopting an ethnographic approach. The results show that the fishing nets used by fishermen in Bondet village, the coast of Gunung Jati Subdistrict, Cirebon, contain mathematical aspects, especially about the topic of geometry that it is found fishing nets of various shapes and sizes are in rectangular and rhombus shapes which can then be measured for the area and circumference.
- **Keywords:** circumference, Gunung Jati, Bondet Village