

ABDUCTIVE ARGUMENTATION FOR PROVING IN A DYNAMIC GEOMETRY ENVIRONMENT

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TÓM TẮT:

The continuity and gap between argumentation and proof may explain the reason why students usually make some mistakes during proving process and unable to write their formal proof. In order to construct the proofs the students use deduction based on produced arguments and previous theorems. However, they tend to use abduction during the process of formulating the conjectures and bringing up the idea of proof. In this paper we would like to investigate how a dynamic geometry environment encourage the students in producing abductive argumentation for proving and making sense of proof at the tertiary level. We have also singled out a sequence of phases in which the students pass from recognizing invariants to increasing levels of deductive argumentation.