

ZMATH 2015d.00488

Grenier, Denise

Research situations to learn logic and various types of mathematical reasonings and proofs.

Ubuz, Behiye (ed.) et al., CERME 8. Proceedings of the eighth congress of the European Society of Research in Mathematics Education, Antalya, Turkey, February 6–10, 2013. Ankara: Middle East Technical University (ISBN 978-975-429-315-9). 136-145 (2013).

Summary: We present an analysis of the role of research processes and experimental activities in our “research situations”, allowing students to learn fundamental knowhow in mathematics: experimentation, studying particular cases, reasoning, formulation of conjectures, examples and counterexamples, generalizing, proving, etc. as described in curricula and related documents of french junior high schools and high schools. The reasoning and proving processes are a full part of our SiRC. This will be illustrated here with examples.

Classification: E50 D30 D40 E30

Keywords: role of research processes; experimental activities; research situation; mathematics investigation; logic; reasoning; proof