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The conceptual interface between secondary and university mathematics: a schema-based analysis.

Hiroshima J. Math. Educ. 11, 21-31 (2005).

In this paper I provide a theoretical analysis of difficulties experienced by students in having to transfer concepts they have learnt in high school to university mathematics. This analysis is based on the assumption that mathematical knowledge can be represented in the form of organised structures called schemas. The organisational quality of students' mathematical schemas is a function of spread of network and strength of links between pieces of information. Well-developed schemas are argued here to facilitate assimilation of university mathematical concepts and the use of this new information in the solution of novel problems. (Author's abstract)

Classification: C35 D55

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