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Analysis of student errors in conceptualization and symbolism of differential equations in chemistry. (Análisis de errores en la conceptualización y simbolización de ecuaciones diferenciales en alumnos de química.)

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In this paper, the authors analyze the most frequent mistakes made by chemistry students in their second year at the University of Seville (Spain) while they are working on Differential Equations (DE). These mistakes were collected from the answers the students gave in a test that was prepared specifically for this purpose. The test had three questions focused on three purely mathematical aspects: defining, exemplifying and modelling. The answers were classified according to the notions reflected in the definitions and the examples characteristics our students gave. We analyze relations between both classifications, too. Identifying and analyzing these mistakes can help us to locate obstacles in concept formation and to detect individual difficulties in proposed tasks. (orig.)

Classification: I75