

A qué tipo de problemas matemáticos están expuestos los estudiantes de Cálculo? Un análisis de libros de texto [

2017

text (article)

Analítica

Given the importance of solving mathematical problems placed in real contexts and given the influence of the textbook in the teaching and learning of mathematics, it is important to study to what kind of mathematical problems students are exposed. In this article, we present a distinction between conventional mathematical problems and mathematical modeling problems in terms of nine aspects related to the problem statement and its solution (Green and Emerson, 2010). Using these nine criteria, we analyzed and classified a total of 188 examples and 1,114 exercises found in the unit about functions in a sample of Calculus textbooks from Mexican and American publishing companies. As a result, the analysis showed that between 65% and 87% of the examples and exercises in the books studied were classified as completely conventional problems. Modeling problems were found in only three of the books analyzed and these correspond to merely 1% or 2% of the examples and exercises of the unit

Given the importance of solving mathematical problems placed in real contexts and given the influence of the textbook in the teaching and learning of mathematics, it is important to study to what kind of mathematical problems students are exposed. In this article, we present a distinction between conventional mathematical problems and mathematical modeling problems in terms of nine aspects related to the problem statement and its solution (Green and Emerson, 2010). Using these nine criteria, we analyzed and classified a total of 188 examples and 1,114 exercises found in the unit about functions in a sample of Calculus textbooks from Mexican and American publishing companies. As a result, the analysis showed that between 65% and 87% of the examples and exercises in the books studied were classified as completely conventional problems. Modeling problems were found in only three of the books analyzed and these correspond to merely 1% or 2% of the examples and exercises of the unit

https://rebiunoda.pro.baratznet.cloud: 28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMzExNjM2NjEVicmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uOmVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmJhcmF0aW9uVzLmPhcmF0aW9uVzLmPhcmF0aW9uVzLmPhcmF0aW9UPAW9UPVZW9UPVZW9UPVZW9UPVZW9UPVZW9UPVZW9UPVZW9UPVPVZW9UPVZW9UPVZW9UPVZW

**Título:** A qué tipo de problemas matemáticos están expuestos los estudiantes de Cálculo? Un análisis de libros de texto electronic resource]

Editorial: 2017

**Tipo Audiovisual:** análisis de libros de texto problemas de modelaje matemático problemas convencionales resolución de problemas cálculo analysis of textbooks mathematical modeling problems conventional problems solving problems calculus

Documento fuente: Educación matemática, ISSN 1665-5826, Vol. 29, Nº. 3, 2017, pags. 51-78

Nota general: application/pdf

Restricciones de acceso: Open access content. Open access content star

**Condiciones de uso y reproducción:** LICENCIA DE USO: Los documentos a texto completo incluidos en Dialnet son de acceso libre y propiedad de sus autores y/o editores. Por tanto, cualquier acto de reproducción, distribución, comunicación pública y/o transformación total o parcial requiere el consentimiento expreso y escrito de aquéllos. Cualquier enlace al texto completo de estos documentos deberá hacerse a través de la URL oficial de éstos en Dialnet. Más información: https://dialnet.unirioja.es/info/derechosOAI | INTELLECTUAL PROPERTY RIGHTS STATEMENT: Full text documents hosted by Dialnet are protected by copyright and/or related rights. This digital object is accessible without charge, but its use is subject to the licensing conditions set by its authors or editors. Unless expressly stated otherwise in the licensing conditions, you are free to linking, browsing, printing and making a copy for your own personal purposes. All other acts of reproduction and communication to the public are subject to the licensing conditions expressed by editors and authors and require consent from them. Any link to this document should be made using its official URL in Dialnet. More info: https://dialnet.unirioja.es/info/derechosOAI

## Lengua: Spanish

Enlace a fuente de información: Educación matemática, ISSN 1665-5826, Vol. 29, Nº. 3, 2017, pags. 51-78

## **Baratz Innovación Documental**

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es