



1st ed. 2016, XXI, 481 p. 133 illus., 92 illus. in color.

 **Printed book****Hardcover**

- ▶ 99,99 € | £74.50 | \$129.00
- ▶ \*106,99 € (D) | 109,99 € (A) | CHF 110.00

 **eBook**

Available from your library or

- ▶ [springer.com/shop](http://springer.com/shop)

 **MyCopy**

Printed eBook for just

- ▶ € | \$ 24.99
- ▶ [springer.com/mycopy](http://springer.com/mycopy)

J. Monaghan, L. Trouche, J.M. Borwein

**Tools and Mathematics**

Instruments for learning

Series: Mathematics Education Library

- ▶ **The only book on the topic of tools and mathematics education**
- ▶ **Comprehensive coverage from pre-history to future directions in the field**
- ▶ **Content divided equally among the areas of curriculum, assessment, and policy design**

This book is an exploration of tools and mathematics and issues in mathematics education related to tool use. The book has four parts. The first part sets the scene with a reflection on doing a mathematical task with different tools, a mathematician's account of tool use in his work and historical considerations of tool use. The second part opens with a broad review of technology and intellectual trends, circa 1970, and continues with three case studies of approaches in mathematics education and the place of tools in these approaches. The third part considers issues related to mathematics instructions: curriculum, assessment and policy; the calculator debate; mathematics in the real world; and teachers' use of technology. The final part looks to the future and digital tools: task design; the importance of artefacts in gameplay; and new forms of activity via connectivity.



Order online at [springer.com](http://springer.com) ▶ or for the Americas call (toll free) 1-800-SPRINGER ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com). ▶ For outside the Americas call +49 (0) 6221-345-4301 ▶ or email us at: [customerservice@springer.com](mailto:customerservice@springer.com).

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with \* include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with \*\* include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted.