

ZMATH 06678999

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Modeling for introducing students to new tools.

Kaiser, Gabriele (ed.) et al., Werner Blum und seine Beiträge zum Modellieren im Mathematikunterricht. Festschrift zum 70. Geburtstag von Werner Blum. Wiesbaden: Springer Spektrum (ISBN 978-3-658-09531-4/pbk; 978-3-658-09532-1/ebook). Realitätsbezüge im Mathematikunterricht, 249-258 (2015).

Summary: Traditional approaches to mathematical modeling involve starting with a real world situation and seeing what mathematics it leads to or starting with a kind of mathematical tool (e.g. Markov chain) and examining where this tool finds use. Here a middle ground is suggested. The value of looking at modeling as a way of promoting a variety of themes (optimization, fairness, etc.) rather than techniques (using equations, using statistics, etc.) is explored. Dedicated to Werner Blum in honor of his 70th birthday, with thanks for all he has done to promote mathematical modeling.

Classification: M10 D30

doi:10.1007/978-3-658-09532-1_18