

ZMATH 2013e.00339

Thompson, Denisse R.

Reasoning and justification in the secondary mathematics classroom.

Kaur, Berinderjeet (ed.) et al., Reasoning, communication and connections in mathematics. Yearbook 2012, Association of Mathematics Educators. Hackensack, NJ: World Scientific (ISBN 978-981-4405-41-6/hbk; 978-981-4405-43-0/ebook). 89-106 (2012).

Summary: Reasoning and justification are critical processes in the mathematics curriculum, yet students often struggle with these processes. This chapter uses a framework from textbook research to illustrate types of exercises that can be used to enhance the extent to which reasoning and justification are evident in the curriculum. Typical items from the algebra and statistics portion of the secondary curriculum are shared, with suggestions for modifications that highlight reasoning and justification.

Classification: E53 H33

Keywords: reasoning; justification; textbooks; exercise types

doi:10.1142/9789814405430_0005