## **The Real Number System**

1. Is the sum or product of two rational numbers always rational? Why, or why not? Provide examples and an explanation.

2. Is the sum of a rational number and an irrational number rational or irrational? Provide examples and an explanation.

3. Is the product of a nonzero rational number and an irrational number rational or irrational? Provide examples and an explanation.

Copyright © 2018 by Corwin. All rights reserved. Reprinted from *The Common Core Mathematics Companion: The Standards Decoded, High School: What They Say, What They Mean, How to Teach Them* by Frederick L. Dillon, W. Gary Martin, Basil M. Conway IV, and Marilyn E. Strutchens. Thousand Oaks, CA: Corwin, www.corwin.com. Reproduction authorized only for the local school site or nonprofit organization that has purchased this book.