

Smarter Balanced Assessment Item Illustrating 7.NS.A.3

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Example Stem: Mark buys a wooden board that is $7\frac{1}{2}$ feet long. The cost of the board is \$0.50 per foot, including tax. What is the total cost, in dollars, of Mark's board?

Answer Key

3.75

Elaboration on Alignment

Standard 7.RP.A.3 represents an important capstone of students' work with the rational number system. The cost in this problem, expressed as a unit rate, ties the work nicely to the RP domain and the quantities in the problem reveal something important about the world – that lengths are often expressed using fractions and costs are primarily expressed using decimals, and so working flexibly with numbers expressed in different forms is an important outcome of the K-7 progression that develops the number system through rational numbers. Assessments must also include some of students' newer work with operations that include negative numbers as part of measuring the depth of this standard.

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