How Students Come to Understand the Domain and Range for the Graphs of Functions

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Abstract
To understand the mathematical concept of function, students must understand certain sub-concepts, such as domain and range. Little is known about how students come to understand the domain and range for the graphs of functions. In this study, we identified the common strategies, transitional conceptions with common strategic errors, and representational challenges evidenced by community college students during tasks involving the graphs of functions. Data from the students’ responses to tasks and subsequent interviews are reported.

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