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**Reasoning about quantities that change together.**

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From the text: Imagine a soda bottle being filled at a constant rate. How might the volume of soda in the bottle change with respect to the height of soda in the bottle? To respond, we need to consider how the quantities of volume and height “covary”, or change together, in relation to the shape of the bottle. That is, we need to engage in quantitative reasoning that involves describing rates of change. Although we usually associate thinking about rates of change—particularly, varying rates of change—with calculus, the foundation of these ideas begins much earlier. In this article, I share data from interviews with secondary school mathematics students to illustrate two different types of reasoning that can be observed in such situations.

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