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How many jelly beans are in the jar?

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Summary: Who will make a better estimate concerning the number of jelly beans in a jar, a single person or a group of people? On one side of the debate is the notion that a person would make a better decision because he or she uses unique knowledge that the group may not possess. On the opposite side of the argument is the claim that because of their breadth of responses, the collective wisdom of a group will arrive at a better conclusion. This is the very dilemma that finance professor Jack Treynor posed to his students regarding [*J. Surowiecki*, The wisdom of the crowds. New York, NY: Anchor Books (2005)]. After reading this book, the authors wondered how middle school students would respond to the question. Moreover, they thought the question could be used as an entry point for them to leverage middle school students' mathematical intuitions regarding estimation and then link those estimates to data representation and analysis. In particular, they focused their effort on students' understanding of measures of center, as their experiences have suggested that although middle school students often use the word average, they do not necessarily specify which measure of central tendency they are referencing: mean, median, or mode or some completely different mathematics concept. In this article, the authors suggest that students' mathematical intuition about estimation can serve as an entry point for tasks exploring measures of center by answering the question "how many jelly beans are in the jar?" (ERIC)

Classification: K43 D83 N23 U73
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