

College Preparatory Mathematics Chapter 1 Sample Argumentation Task

1-64. Jenny, Ann, and Gigi were thinking about **odd** and **even** numbers. (When **even** numbers are divided by two, there is no remainder. When **odd** numbers are divided by two, there is a remainder of one.) Jenny said, "*Odd numbers cannot be formed into a rectangle with two rows. Does that mean they are prime?*"

Consider Jenny's question with your team. Are all odd numbers prime? If so, explain how you know. If not, find a **counterexample**. A counterexample is an example that can be used to show a statement is false (in this case, finding a number that is odd but not prime).

This sample is an ADEQUATE QUALITY argumentation task. We are presented with a character who has a **mathematical misconception**. However, the wording of this task is repetitive, and shortening it could help student reading comprehension. Also, since there are no visuals some students might have a hard time visualizing this concept, so I would be sure to provide drawing strategies or manipulatives. With these accommodations the task can lead to a great talk frame discussion regarding primality and its relationship to oddity.

*"Jenny, Ann, and Gigi were thinking about **odd** and **even** numbers. Jenny said, "**odd numbers cannot be represented as a rectangular pattern with two rows. Does that mean they are prime**"? Do you agree with Jenny? Use labeled sketches to support your answer and explain your thinking."*