

College Preparatory Mathematics Chapter 8 Sample Argumentation Task

8-96. A.J. and her sister are entering a 200-mile bike race on their bicycle built for two. On a training ride, they traveled 60 miles in 2.5 hours. They want to use this information to find out how long it will take them to finish the bike race. Draw a diagram for this situation and be ready to explain how you found your solutions to the questions below.

- What is their bicycling rate? What is their unit rate (per hour)?
- How far can they go in three hours? In six hours? Explain how you can use the rate of travel and the time to find the distance.
- If they bike ten miles, how long will it take them? Explain how the distance and rate helped you find the time.
- If they bike at this same rate for the entire race, how long will it take them to finish the 200-mile race?
- Summarize in words the relationship between the distance the girls travel, their rate of travel, and how long they ride (the time).



Due to chapter 8's focus on statistical models and analyzing data, there are less opportunities for argument tasks. However, part b in the sample above is an ADEQUATE QUALITY argument task. It requires students to identify patterns and rates of change while also **explaining** how these can be used to make larger computations simpler.

"A. J. and his sister are entering a 200-mile bike race on their bicycle built for two. In a training ride they traveled 60 miles in 2.5 hours. How far can they travel in 3 hours? What about 6? Explain how the rate of change can help us find how far they traveled in any amount of time. Be sure to use evidence to support your answer and explain your reasoning."