0 Question: A train is coasting around a large circular track. It is then switched to a smaller circular track. How does its speed change? Assume no friction.

A1: The speed slightly decreases

A2: The speed increases

Arguments for A1

2 Question: Does the energy of the train change?

A1: No

A2: Yes

3 Question: If the energy of the train doesn't change, does the speed of the train decrease slightly?

A1: Yes

A2: Yes

4 Question: Meta-debate: Given the questions and answers in this round, which is the better answer to the question?

A1: The speed slightly decreases

A2: The speed increases

Arguments for A2

1 Question: Is the angular momentum conserved?

A1: Probably not

A2: Probably

5 Question: Does the moment of inertia decrease?

A1: Yes

A2: Yes

6 Question: If the moment of inertia decreases, does that mean the speed increases?

A1: Under certain conditions

A2: Yes