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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, and assume the train is a point mass

The speed stays the same (95% confidence)

The speed probably doesn't stay the same (90% confidence)

1

Does the translational kinetic energy of the cart stay the same?

Yes (96% confidence)

No (85% confidence)

5

Does the total energy of the cart stay the same?

Yes (98%)

No (70% confidence)

9

Do these other types of energy stay the same?

Yes (98%)

Yes (80%)

11

Does the total energy of the cart plus the energy of the rails stay the same?

Yes (99% confidence)

Yes (58%)

13

Does the energy of the rails stay the same?

Yes (99% confidence)

Yes (70%)

38

Is there any way for significant energy to be transferred "into" the [cart plus rails]?

No (99.8% confidence)

No (60%)

17

Are the rails just normal rails that a train is running on, that are attached to the ground and don't move or change in any way?

Yes (99.5%)

Yes (85%)

32

When the track is switched, does this change the energy of the rails in a way that's relevant in the context of question 13?

No (99.5% confidence)

no (80%)

48

Is there any plausible way for the earth to transfer energy to the [cart plus rails] system?

No (99.9%)

No (65%)