

Name _____

Favorite Palindrome _____

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1. Rosa Boat exerts 1.20 N of force for 0.135 m on a 0.345 kg air track glider that is initially at rest. What is its final velocity? (assume the air track is level)

2. Shirley Nott sets up an air track so the left side is higher than the right. If a 0.345 kg glider starts at rest on the left side, and is going 0.686 m/s when it reaches the right side, what is the change in height from left to right?

3. A 3.40 kg bowling ball hanging from the ceiling on a long string swings from side to side like a pendulum. When it is at rest 15.0 cm above its lowest point on the left side, I shove it from rest with a force of 11.0 N for a distance of 0.350 m in the direction it is going. How high will it swing on the other side? (Neglect friction)

4. A 580. kg rollercoaster car is going 7.50 m/s on the top of a 1.20 m tall hill, how fast is it going on top of a 3.50 m tall hill? (Neglect friction)