

Name:

Number:

Date:

Newton #3 (Laws of Motion)

1. Use Newton's Second Law to explain why a mini cooper has a larger acceleration than a loaded semi-truck.
2. Use Newton's second law to explain why a car will have a larger acceleration when it is pushed by multiple people, than if you pushed it on your own.
3. According to Newton's Third Law, when you jump off a desk, the force the Earth exerts on you, is equal to the force you exert on the Earth. However, it seems as if only you accelerate down. The earth doesn't seem to accelerate up. Why is this?

Determine which of Newton's Laws you think best explains the situation and explain your choice in at least one complete sentence. *There may be more than one right answer. I care more about your explanation than I do about which law you picked.*

4. Jen is using her computer. She bumps her mouse and it falls off the desk.
5. Jen goes shopping at the grocery store. She notices that as she adds items to the cart it gets harder to push.
6. You jump into the air by pushing off the ground.
7. You are thrown forward in the car when the driver slams on the brakes.