

Newton's 1st Law

Physical Science and Technology

1. A giant chicken is standing on top of a car that is travelling at 60 km/sec. The car slams on its brakes and comes to a stop. What happens to the giant chicken? Why?
2. A very small chicken is sitting on a table. There is no net force acting on her. What happens to her? Why?
3. A medium-sized chicken is holding a large dog at the top of a cliff. She lets go. What happens to the dog? What was the force that caused the dog to move?
4. An infinitely large chicken is holding a dog at the top of a cliff in a location where there **is no gravity**. She lets go. What happens to the dog? Why?
5. An infinitesimally small chicken is pushing a cat down a gravel road. She stops pushing. What happens to the cat? What was the force that affected the cat's motion after the infinitesimally small chicken stopped pushing him?
6. A sizeless chicken is pulling a goat down a brick road that is **completely frictionless**. She stops pulling the goat. What happens to the goat?
7. An animal formerly known as Chicken is moving with a velocity of 7.1 m/s. She is being pushed upward by the floor, pulled downward by gravity, pushed forward by the dog, and pushed backwards by friction. There is no net force acting upon her. How long will it take her to stop moving?