

25

What is the acceleration of softball if it has a mass of 0.5 kg and hits the catcher's glove with a force of 25 N?

26

Your own car has a mass of 2000 kg. If your car produces a force of 5000 N. How fast will it accelerate?

27

Jennifer wants to accelerate even faster than in problem #26, so she removes 500 kg of mass from her car. How fast will her 1500 kg car accelerate if it produces 5000 N of force?

28

Jeremy challenges you to a race. On the first turn you run off the course and your car slides a large hole of hay. Your car still produces 5000 N of force, but now it accelerates at only 2 m/s<sup>2</sup>. What is the mass of your car now that the hole of hay is stuck to it?