

1. A 45 kg mass is accelerated upward at 5.9 m/s^2 . What upward force is necessary to accomplish this?
2. A 45 kg person running at 27 km/hr trips and slides to rest in 2.3 m. What is μ ?
3. A 45 kg rock falls from a 33 m cliff and strikes the water below. a) What velocity does the rock hit the water at?...b) What force does the water apply to the rock to stop it in 2.1 m?
4. A 45 kg box is pulled across the floor by a 250 N force at a constant velocity. What is μ ?
5. A 45 kg box is pulled across a floor by a 250 N force with μ being 0.21. What is the acceleration of the box?
6. A 2.3 kg bat strikes a 0.35 kg ball with a force of 177 N. a) What is the acceleration of the ball?...b) What is the acceleration of the bat?...c) How fast does the ball leave the bat at if the time of contact is 0.090 s?