

Momentum Unit: Stations Review Questions

- What is the momentum of a 5 kg object moving at 17 km/h?
 - What is the impulse of a 5 kg object accelerating from rest to 12 m/s?
- Trying to make pigs fly, you shoot a pig out of a 200 kg pig cannon. The 80 kg pig leaves the cannon at 15 m/s, what is the recoil of the cannon?
- What is the momentum of a 12 kg object moving at a constant velocity for 10 m in 2s?
 - How much force is needed to accelerate a 600 kg car from rest to 80 km/h in 3s?
- A 1666 kg Ford Galaxy moving at 50 km/h runs head-on into a 1245 kg Honda civic moving at 60 km/h. If they stick together, what is their final velocity (include direction)?
- What is the momentum of a 30 kg object moving at -30 m/s?
 - How long would it take to accelerate a 20 kg mass from rest to 30 km/h if there is a 40 N net force?
- An object of mass 2 kg moving with velocity 12 m/s collides head-on into a stationary object whose mass is 6 kg. After the collision, the first object has velocity -6m/s, what is the velocity of the second object?