1. A compact car, mass of 725 kg, is moving at 100 km/hr.
   (a) Find its momentum. (20,138.9 N s)

   (b) At what velocity is the momentum of a larger car, mass of 2175 kg, equal to that of the smaller car? (9.26 m/s)

2. A snowmobile has a mass of 250 kg. A constant force is exerted on it for 60 s. The snowmobile's initial velocity is 6 m/s and it accelerates to 28 m/s
   (a) What is its change in momentum? (5500 kg m/s)

   (b) What is the magnitude of the force exerted on it? (91.7 N)

3. The brakes exert a 640 N force on a car weighing 15,680 N and moving at 20 m/s. The car finally stops.
   (a) What is the car's mass? (m=1600 kg)

   (b) What is its initial momentum?(32,000 N s)

   (c) What is the change in the car's momentum? (32,000 N s)

   (d) How long does the braking force act on the car to bring it to a halt? (50sec)

4. A force of 6 N acts on a 3 kg object for 10 sec.
   (a) What is the object's change in momentum? (60 N s)

   (b) What is its change in velocity? (20 m/s)

5. The velocity of a 600 kg automobile is changed from 10 m/s to 44 m/s in 68 s by an applied constant force.
   (a) What is the change in momentum does the force produce? (20,400 kg m/s)

   (b) What is the magnitude of the force? (300 N)