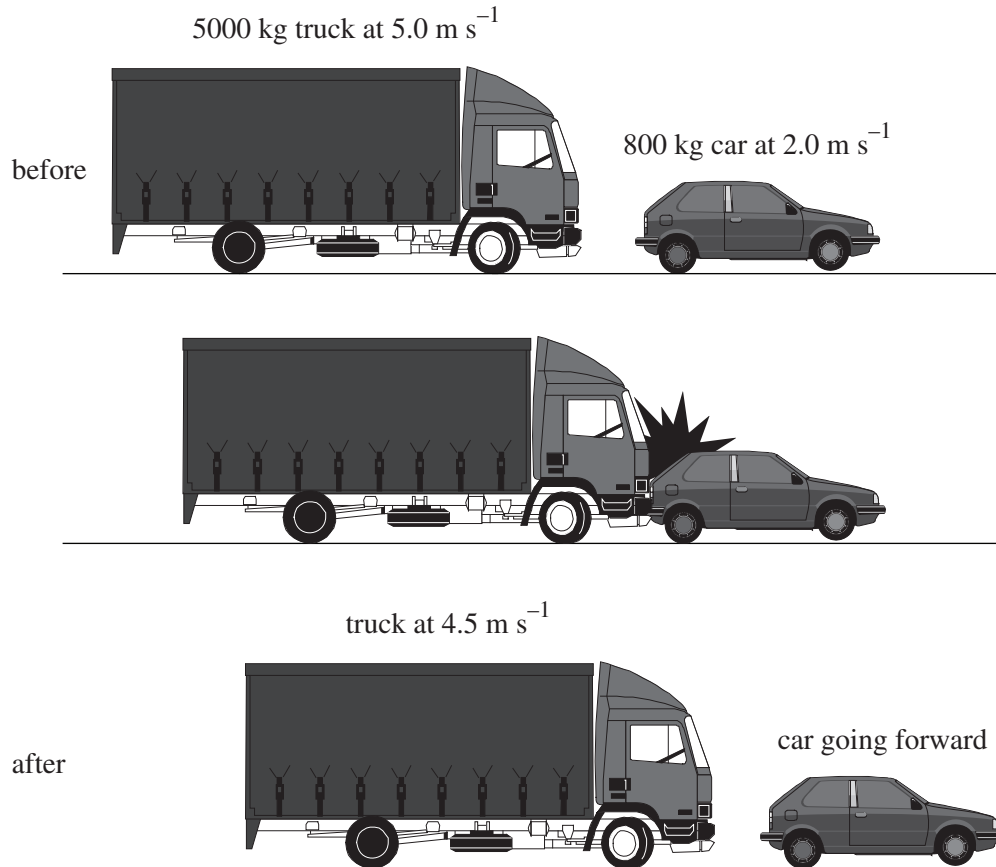


Question 10 (4 marks)

A truck of mass 5000 kg travelling at 5.0 m s^{-1} to the right approaches and collides with a small car of mass 800 kg travelling at 2.0 m s^{-1} , also to the right.

As a result of the collision, the truck slows to a speed of 4.5 m s^{-1} , still to the right. This is shown in Figure 11.

**Figure 11**

Determine whether the collision was elastic or inelastic and provide any calculations as evidence for your answer.
