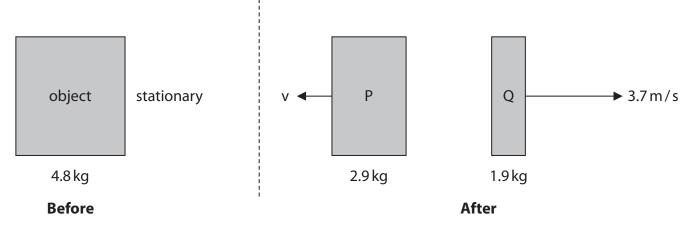
- 2 This question is about momentum.
  - (a) Which of these is the correct unit for momentum?

(1)

- A kg/m/s
- B kg²m/s
- $\square$  **C** kg m/s<sup>2</sup>
- D kgm/s
- (b) The diagram shows an object before and after an explosion.

The object breaks into two parts, P and Q.

The parts move away from each other in opposite directions.



- (i) State what is meant by the **principle of conservation of momentum**.
- (ii) Calculate the magnitude of the velocity of part P after the explosion.

(3)

(1)

velocity = ..... m/s

,		
(C	) A child drops an egg from a height of 10 cm and the egg lands on the floor.	
	Explain why the egg is less likely to break if the floor is covered with a thick carpet than if the floor were covered in hard tiles.	
		(3)
	(Total for Question 2 = 8 mar	ks)

