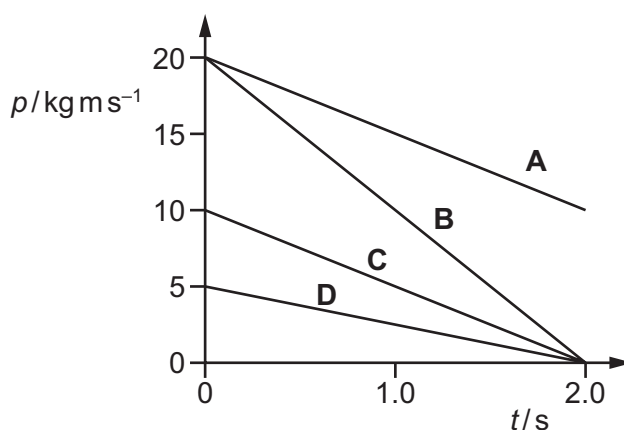


- 7 A resultant force of 10 N acts on a body for a time of 2.0 s.

Which graph could show the variation with time  $t$  of the momentum  $p$  of the body?



- 8 The acceleration of free fall on the surface of planet P is one tenth of that on the surface of planet Q.

On the surface of P, a body has a mass of 1.0 kg and a weight of 1.0 N.

What are the mass and the weight of the same body on the surface of planet Q?

	mass on Q/kg	weight on Q/N
<b>A</b>	1.0	0.1
<b>B</b>	1.0	10
<b>C</b>	10	10
<b>D</b>	10	100

- 9 Two bodies travelling along the same straight line collide in a perfectly elastic collision.

Which statement **must** be correct?

- A** The initial speed of one body will be the same as the final speed of the other body.
- B** The relative speed of approach between the two bodies equals their relative speed of separation.
- C** The total momentum is conserved but the total kinetic energy will be reduced.
- D** One of the bodies will be stationary at one instant.