

Paper 3C/4C: Further Mechanics 1*

Topics	What students need to learn:		
	Content	Guidance	
4 Elastic collisions in one dimension	4.1	Direct impact of elastic spheres. Newton's law of restitution. Loss of kinetic energy due to impact.	Students will be expected to know and use the inequalities $0 \leq e \leq 1$ (where e is the coefficient of restitution). The spheres may be modelled as particles.
	4.2	Successive direct impacts of spheres and/or a sphere with a smooth plane surface.	The spheres may be modelled as particles.