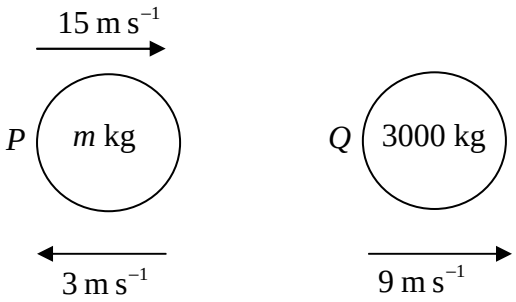
January 2012
6677 Mechanics M1
Mark Scheme

Question Number	Scheme	Marks
1 (a)	 For Q $I = 3000\times 9 = 27\,000$ (N s)	M1 A1 (2)
(b)	Conservation of linear momentum $15m = -3m + 3000\times 9$ Leading to $m = 1500$	M1 A1 A1 (3) **5**
	Alternative to (b) For P $27\,000 = m\left(15-(-3)\right)$ Leading to $m = 1500$	M1 A1 A1 (3)