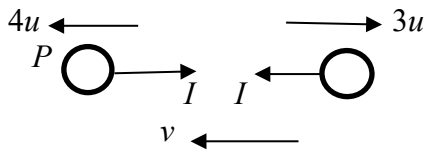
WME01 OCT 2019 POST QPEC
Mark Scheme

Question Number	Scheme	Marks
1.		
(a)	CLM: $3m\times 4u-2m\times 3u=3mv+2mv$	M1A1
	$v=6u/5$	A1 (3)
(b)	For Q: $\pm 2m(\frac{6u}{5}-(-3u))$	M1A1
	$\frac{42mu}{5}$	A1 (3)
Aliter	For P: $\pm 3m(\frac{6u}{5}-4u)$ **M1A1**	
	$\frac{42mu}{5}$ **A1**	**(6)**
	Notes for Qu 1	
1(a)	M1 for an equation with the correct no. of terms, dim correct (allow consistent missing m's or consistent extra g's) with one unknown, but allow sign errors	
	First A1 for a correct equation (allow -v)	
	Second A1 for $\frac{6u}{5}$ (must be positive)	
1(b)	M1 for impulse-momentum principle applied to Q ; condone sign errors but must be using $2m$ for mass and subtracting momenta (allow 'v' or their v in the equation for this M mark provided v is a velocity) M0 if it's dimensionally incorrect e.g if g is included	
	First A1 for a correct equation	
	Second A1 for $\frac{42mu}{5}$	
Aliter	M1 for impulse-momentum principle applied to P ; condone sign errors but must be using $3m$ for mass and subtracting momenta (allow v in the equation for this M mark) M0 if g is included	
	First A1 for a correct equation	
	Second A1 for $\frac{42mu}{5}$	