

Question	Answer	Marks	AO	Guidance	
8	$6\mathbf{i} = \mathbf{u} + 4(3\mathbf{i} - 2\mathbf{j})$	M1*	3.3	Applying $\mathbf{v} = \mathbf{u} + \mathbf{a}t$ correctly - working must imply that \mathbf{v} and \mathbf{a} are vectors Or for $\mathbf{v} = 3t\mathbf{i} - 2t\mathbf{j} + \mathbf{c}$ and using $t = 4$, $\mathbf{v} = 6\mathbf{i}$ to find \mathbf{c}	M0 if $\mathbf{u} = -6\mathbf{i} \pm 14\mathbf{j}$
	$\mathbf{u} = -6\mathbf{i} + 8\mathbf{j}$	A1	2.5	or for $\mathbf{v} = (3t - 6)\mathbf{i} + (-2t + 8)\mathbf{j}$ and setting $t = 0$ to obtain correct \mathbf{u}	
	$u = \sqrt{(-6)^2 + 8^2}$	M1dep*	1.1	Correctly taking the magnitude of their \mathbf{u} but condone $\sqrt{-6^2 + 8^2} = \sqrt{\pm 36 + 64}$	Correct answer following $-6\mathbf{i} + 8\mathbf{j}$ (with no wrong working) scores full marks
	$u = 10 \text{ (ms}^{-1}\text{)}$	A1	1.1	www	
		[4]			