7	**all**		Allow *a* and *b* without "squiggles" beneath			
7	**(a)**		Length of AB oe	**B1** **[1]**	1.2	Magnitude of $\overrightarrow{AB}$ or distance from A to B Allow Magnitude of AB Not magnitude of $|\mathbf{a}-\mathbf{b}|$ or magnitude of $\mathbf{a}-\mathbf{b}$ Not distance from *a* to *b* Not distance from position vector A to position vector B
7	**(b)**		Midpoint of AB oe	**B1** **[1]**	1.2	or Halfway between A and B Allow Midpoint of $\overline{AB}$ Must refer to A and B, not *a* and *b* Not Midpoint of the vectors
7	**(c)**	**(i)**	$\frac{1}{2}(\mathbf{a}+\mathbf{b})$	**B1** **[1]**	2.2a	
7	**(c)**	**(ii)**	$\frac{1}{2}|\mathbf{a}-\mathbf{b}|$ oe	**B1** **[1]**	2.2a	

Question			Answer	Mark	AO	Guidance
7	**(d)**		Centre is (3, 2)	**B1**	**1.1**	Allow this mark for (3, 2) or $\begin{pmatrix} 3 \\ 2 \end{pmatrix}$ or $\frac{1}{2}\begin{pmatrix} 6 \\ 4 \end{pmatrix}$ oe seen May be implied by answer
			$r^2 = 10$ or $r = \sqrt{10}$ or 3.16 (3 sf)	**B1**	**1.1**	May be implied by answer. Must imply radius
				M1	**1.1**	M1 for $(x-a)^2 + (y-b)^2 = r^2$ for any non-zero numerical a, b and r
			$(x-3)^2 + (y-2)^2 = 10$	**A1**	**1.1**	A1 for all correct. **ISW**
				[4]		