Question	Scheme	Marks	AOs
1	Any two of $\mathbf{i}: 10-\lambda = 17+5\mu$ (1); $\mathbf{j}: \lambda = 1-\mu$ (2); $\mathbf{k}: -9+2\lambda = 3+3\mu$ (3)	M1	1.1b
	Solve any two simultaneous equations e.g. (3) – 2(2) gives: $-9 = 1+5\mu \Rightarrow \mu = -2$ e.g. (2) + (1) gives: $10 = 18+4\mu \Rightarrow \mu = -2$	dM1	1.1b
	$\lambda = 3, \mu = -2$	A1	1.1b
	Checks the unused equation e.g. $\lambda = 3$: LHS $= 10-\lambda = 10-3 = 7$ $\mu = -2$: RHS $= 17+5\mu = 17-10 = 7$ therefore the lines intersect or substitutes the values of λ and μ into the relevant equation and draws the conclusion that the lines intersect	B1	2.1
	$\mathbf{r} = \begin{pmatrix}10\\0\\-9\end{pmatrix} + 3\begin{pmatrix}-1\\1\\2\end{pmatrix}$ or $\mathbf{r} = \begin{pmatrix}17\\1\\3\end{pmatrix} - 2\begin{pmatrix}1\\-1\\3\end{pmatrix}$	M1	1.1b
	Intersect at $\mathbf{r} = \begin{pmatrix}7\\3\\-3\end{pmatrix}$ or $\mathbf{r} = 7\mathbf{i}+3\mathbf{j}-3\mathbf{k}$	A1	2.2a
		(6)	
			(6 marks)

Notes:

M1: Writes down any two correct equations

dM1: Solve two equations simultaneously to find a value for μ or λ

A1: Correct values for μ and λ

B1: Shows that the values of μ and λ give the same coordinates or point of intersection and draws the conclusion that the **lines intersect**

M1: Substitutes μ and λ into a relevant equation

A1: Deduces the point of intersection.