

8(a)	Use a correct method to form an equation for l_1
	Obtain $\mathbf{r} = (2\mathbf{i} + 4\mathbf{k}) + \lambda(3\mathbf{i} + \mathbf{j} + 2\mathbf{k})$
8(b)	Express general point of a line in component form
	Equate two pairs of components of l_2 and <i>their</i> l_1 , and solve for λ or μ
	Obtain e.g. $\lambda = -\frac{1}{5}, \mu = -\frac{3}{5}$
	Show that this does not fit the third component and hence the lines do not intersect.
8(c)	Carry out the correct process for evaluating the scalar product of the direction vector of l_1 and l_2
	Using the correct process for the moduli, divide their scalar product by the product of the moduli of their vectors and evaluate the inverse cosine of the result
	Obtain AWRT 38.2° or 0.667 radians