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| **Topic 3: Geometry and Trigonometry**  | **Vectors in Component Form** |
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| 1. The position vectors of points A and B are and respectively.
	1. Find the vector equation of the line that passes through A and B.
	2. The line through A and B is perpendicular to the vector. Find the value of .
 | (4 marks)(3 marks) |
| Mark scheme:1. ororThe column vector form for each of the equations above.
2.
 | (M1)(A1)(A1)(A1)(A1) for correct dot product(M1) setting it equal to zero(A1) |