

STEP II, 2017, Q8 EC

The vectors question again proved extremely unpopular, despite the fact that it is perhaps the easiest question on the paper. It drew the least number of attempts from the Pure Maths questions (the only one under half of the entry) and two-thirds of these were not substantial attempts. In this case, it is easy to say what (almost invariably) appeared: candidates generally got no further than the first three marks, which could be gained by writing down two line equations, $\mathbf{r} = \mathbf{a} + \lambda \mathbf{u}$ and $\mathbf{r} = \mathbf{b} + \mu \mathbf{v}$, and then equating the two expressions for \mathbf{r} . Few made further progress, revealing a reluctance to engage with the algebraic manipulation of vectors (handling numerical vectors is, of course, a completely different matter altogether).



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