

STEP II, 2008, Q8 EC

Q8 As with Q6, this was both an unpopular question and poorly done. Those candidates who did do well generally did so after spotting that they could use the *Angle Bisector Theorem* to polish off the first half of the question, expressing λ in terms of a and b almost immediately. Predominantly, the whole thing relied almost exclusively upon the use of the scalar product (or, alternatively, the *Cosine Rule*) and a bit of manipulation. The fact that the mean mark on this question was below 7 is simply indicative of the general lack of confidence amongst candidates where vectors are concerned.



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