

STEP III, 2005, Q5 EC

- 5 Almost all attempted this question and found the first two parts straightforward. Most (apart from the significant number who did not understand the phrase 'common tangent') could also identify the discriminant condition for there to be only one tangent. Disappointingly few, however, could link this accurately to the condition for the two curves to touch. The last part was almost always poorly done, with candidates either continuing to use the discriminant, which is not appropriate in this case, since the equation is linear, or being unable to state clearly what the condition is for a linear equation to have exactly one solution.



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