

STEP III, 2012 Q6 EC

6. Two thirds attempted this, with less success than its three predecessors. Very few indeed scored full marks, for even those that mastered the question rarely sketched the last locus correctly, putting in a non-existent cusp. Most candidates managed the first part, good ones the second part too, and only the very best the third part. Quite a few assumed the roots were complex and then used complex conjugates, with varying success. Many candidates lost marks through careless arithmetic and algebraic errors. Given that most could do the first part, it was possible for candidates to score reasonably if they took care and took real parts and imaginary parts correctly.



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