

## STEP II, 2013, Q2 EC

2. This was the second most popular question on the paper and the average score was half of the marks. Despite the instruction in the first part of the question to use a substitution a significant number of candidates chose to use integration by parts to establish the result. There were some sign errors in the integrations, but most candidates managed to reach the final result in the first part of the question. The second part of the question was found to be the hardest, with induction the most popular method, although the process was often not fully explained. The final part of the question did not appear to be too problematic for those that reached it. However, algebraic mistakes, such as factors disappearing, resulted in some marks being lost. Similarly, mistakes in the arithmetic in the final part of the question were not uncommon.



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