

## STEP II, 2014, Q6 EC

### Question 6

This was one of the less popular of the pure maths questions, but the average mark achieved on this paper was one of the highest for the paper. The first section did not present too much difficulty for the majority of candidates, with a variety of methods being used to show the first result such as proof by induction or use of  $e^{-x} = \cos x + i \sin x$ . In the second part of the question many of the candidates struggled to explain the reasoning clearly to show the required result. Most candidates who reached the final part of the question realised that the previous part provides the basis for a proof by induction.



# NextStepMaths.com

To view mark schemes, fully worked solutions and examiner's comments, and for more details about tutoring and other services offered, go to [NextStepMaths.com](https://www.NextStepMaths.com)