



STEP II, 2011, Q7 EC

Q7 The initial hurdle in this question involved little more than splitting the series into separate sums of powers of λ and μ , leading to easy sums of GPs. Many missed this and spent a lot of wasted time playing around algebraically without getting anywhere useful. In (ii), many candidates applied (i) once, for the inner summation, but then failed to do so again for the second time, and this was rather puzzling. Equally puzzling was the lack of recognition, amongst those who had completed most of the first two parts of the question successfully, that the sum of the odd terms in (iii) was *still* a geometric series. Almost exactly half of all candidates made an attempt at this question, but the average score was only just over 5/20.



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