



STEP III, 2016 , Q5 EC

Question 5

This was attempted by half the candidature, scoring similarly to question 2. The binomial expansion and its symmetry were well-handled in the first part, as was applying the result of (iii) in part (iv). Part (ii) was not well-answered as there tended to be cavalier statements regarding divisibility, and in part (iii), few noticed that the condition $m + 1 \leq 2m$ was required in order to use (ii).



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