

STEP III, 2013 , Q12 EC

12. This was the least popular question, attempted by a ninth of the candidates, with slightly less success than question 8. The immediate problem was many made no mention of probabilities in order to calculate expectations. Throughout, there was very poor justification, which included treating the random variables as though they were independent and compensating errors which led to given results. Most progressed no further than part (a) of (ii) at best and many had $E(X_i) = \frac{ab}{n^2}$.



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