



## **STEP II, 2012, Q12 EC**

**Q12** This was not a popular question, and most attempts petered out after part (i), which was usually handled very well, even when the situation was split into more cases than was strictly necessary. Indeed, few made much of a serious attempt at (ii), mainly because they were either finding the range of  $p$  such that (i)'s given answer was equal to  $\frac{3}{7}$ , or solving  $2.5 < E(X) < 3.5$ , where  $X$  was the number of days that the light was on.



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