

STEP II, 2006, Q5 EC

- 5 Despite the introduction of a non-standard function – often called the *floor* or the *INT* function – this was a popular question to attempt. As mentioned earlier, finding the areas required candidates to structure their working and, since there are several ways to break up the bits of the process, a teensy-weensy bit of explanation would have been greatly appreciated by the examiners. The easiest approach to the area in (i) is to work straightaway with the difference $(y_1 - y_2)$ which immediately gives a whole load of “unit triangles” to sum. Attempts varied from excellent-and-concise all the way down to scrambled-heap-of-integrations-and-summations. Part (ii) was handled similarly, although it is strange to say that – despite the slightly greater degree of care needed with the various bits and pieces – there were slightly more correct answers arrived at here.



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