

STEP II, 2018, Q4 EC

This was the second most popular question on the paper. The average mark scored by candidates attempting this question was the highest of all the pure questions.

The first two parts of the question were generally well done with candidates showing confidence in applying the given identity and then factorising and solving the resulting equation. A sizeable minority struggled to deal with the given range for x and so were unable to find all the solutions. In part (ii) many candidates were able to explain clearly why $\cos x = \cos y$ leads to $x = y$.

Part (iii), however, proved to be difficult for the majority of candidates. A small number of candidates did manage to find the quadratic equation and most of these were able to proceed and complete the question fully. Most candidates did not score very many marks in this section.



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