

STEP III, 2009 Q3 EC

3. Though slightly more popular than the first 2 questions, the attempts scored marginally less well. Candidates began well, though the limit of $f'(t)$ was not well done. The even function in (ii) was usually correctly justified. Part (iii) was frequently not quite correctly justified, though some did so by sketching $y = e^{-t}$ and $y = 1 - t$. The sketch of $f(t)$ often had the wrong gradient as it approached the y axis, and asymptotes were frequently not identified.



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