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8. Just fewer than half the candidates attempted this scoring just over a third of the marks. Many managed all but part (iii) easily but few managed that last part, and most did not try it. In part (i), having correctly used the result from the stem, there was frequently not enough care taken in extending this to the full sum. A not infrequent error of logic was that $\sum_{r=1}^{2^{N+1}-1} 1/r < N+1$ and $\lim_{N\to\infty} N+1 = \infty$ somehow implies that $\sum_{r=1}^{\infty} 1/r$ does not converge.