

## Scheffer's Function

The following approximation to Scheffer's function was obtained by Tom Emmerling and Jeff Hamrick. It was done using a partial sum approximation for the function  $g(x) = \sum_{x_n < x} s_n$ . To define  $g$  they used the dense set of dyadic rationals  $n/2^k$  (suitably ordered into a sequence) for  $\langle x_n \rangle$  and for  $s_n$  they used the slowly converging series with  $n$ th term  $s_n = \lambda/n^{8/7}$ , where  $\lambda = \frac{1}{\zeta(8/7)}$  since  $\sum_{n=1}^{\infty} \frac{1}{n^{8/7}} = \zeta(8/7)$ , and so  $\sum_{n=1}^{\infty} s_n = 1$  as required.

