Abstract

We give a simple proof of a monotonicity property of the first zero $j''_{\nu,1}$ of the second derivative $\frac{d^2}{dx^2}J_\nu(x)$, $\nu > -1$, where $J_\nu(x)$ represents the Bessel function of first kind. The result obtained recently by L. Lorch and P. Szego [On the points of inflection of Bessel functions of positive order I, Canad. J. Math. Vol. 42 (1990), 933-948] is proved here by using some inequalities obtained by the well-known expansion of Mittag-Leffler.