

1046-11-992

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A distributional proof of the prime number theorem is presented. The word *distributional* refers to Schwartz distributions. The proof is based on the non-vanishing of the Riemann zeta function $\zeta(z)$ on the line $\Re z = 1$, $z \neq 1$, Chebyshev's elementary estimate, and arguments from the theory of asymptotic behaviors of generalized functions. (Received September 13, 2008)