ABSTRACT: A new constructive method is given here for determining lower bounds for the de Bruijn-Newman constant $\Lambda$, which is related to the Riemann Hypothesis. This method depends on directly tracking real and nonreal zeros of an entire function $F_\lambda(z)$, where $\lambda < 0$, instead of finding, as was previously done, nonreal zeros of associated Jensen polynomials. We apply this new method to obtain the new lower bound for $\Lambda$,

$$-0.385 < \Lambda,$$

which improves previous published lower bounds of $-50$ and $-5$. 