Zbl 061.07904
Erdős, Pál
On highly composite numbers. (In English)
J. London Math. Soc. 19, 130-133 (1944).

A (positive whole) number is called highly composite if it has more divisors than any smaller number, highly abundant if the sum of its divisors is greater than that for any smaller number, and superabundant if the sum of the reciprocals of its divisors is greater than that for any smaller number. The author uses *A.E.Ingham's* theorem on the difference between consecutive primes (Zbl 017.38904) to prove that if n is highly composite, there is another highly composite number between n and $n + n(\log n)^{-c}$, where c is a certain positive constant.

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Classification:
11A25 Arithmetic functions, etc.