

1067-11-2396

Elizabeth McCaslin* (eam013@mcdaniel.edu), 13579 Deer Brook Court, Mount Airy, MD 21771, and **Fenghao Wang**. *Improving Abundancy Bounds*.

We will examine the percentage of integers n such that $\frac{\sigma(n)}{n}$ is at least x , where $\sigma(n)$ is the sum of all positive divisors of n . It is known that the bounds for the solutions to $\frac{\sigma(n)}{n} \geq 2$ are 0.2474 and 0.2480; however, the previous best known bounds for some x are much wider. We explore methods for improving these bounds. (Received September 23, 2010)