## **Ranking Functions by Growth Speed**

 $\frac{1}{2}^{n} < n^{-1} < 7 = 123456789 < \log\log n < \log_4(n) = \log(n) = \log(n) = \log(n^3) < \log^2 n < \log^{\log n} n < n^{1/\log n} < \sqrt{n} = n^{1/2} < n^{3/4} < n^{4/3} < n + 5 < n \log n < 3^{\log n} = 4^{\log n} < n^{1/2} < n$