

## CS 180 Homework 2

Due *Friday, July 16, 2021*

**Problem.** Arrange the following functions in the ascending order of growth rate. Explain the suggested ordering.

$$\log_2^2 n$$

$$\log_{10} 2^n$$

$$\log_2 n^3$$

$$\log_2^2 n^n$$

$$\log_2^2 n + 2n$$

$$\log_{10}(10n)$$

$$a \log_{10}^2 n + b \log_{10} n + c$$

$$\log_2^2(n + 2n)$$