Probability & Statistics for EECS: Homework #01

Due on Feb 19, 2023 at 23:59

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Problem 1

1. $f(n)$
2. $f(n)$
3. $f(n)$
4. $$f(n)$$
5. $$f(n)$$
6. $$f(n) \tag{1}$$

Problem 2

1. $$\begin{aligned} n^2 + n + 1 \leq\ & n^2 + n^2 + n^2 \\ =\ & 3n^2 \\ \leq\ & c \cdot 2n^3 \end{aligned}$$
2. $$\begin{aligned} n^2 + n + 1 \leq\ & n^2 + n^2 + n^2 \\ =\ & 3n^2 \\ \leq\ & c \cdot 2n^3 \end{aligned} \tag{2}$$
3. $$n^2 + n + 1 \leq\ n^2 + n^2 + n^2 \tag{3}$$
$$= 3n^2 \tag{4}$$
$$\leq c \cdot 2n^3 \tag{5}$$

$$\left\{ \begin{array}{c} n \\ k \end{array} \right\}$$