Probability & Statistics for EECS: Homework #11

Due on Apr 30, 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.

$$n^{2} + n + 1 \le n^{2} + n^{2} + n^{2}$$

= $3n^{2}$
 $\le c \cdot 2n^{3}$

2.

$$n^{2} + n + 1 \leq n^{2} + n^{2} + n^{2}$$

$$= 3n^{2}$$

$$\leq c \cdot 2n^{3}$$
(2)

3.

$$n^2 + n + 1 \le n^2 + n^2 + n^2 \tag{3}$$

$$=3n^2\tag{4}$$

$$\leq c \cdot 2n^3 \tag{5}$$