

MATH 280 Discrete Mathematical Structures Assignment #5

Name \_\_\_\_\_

The point values for each question appear within []. The total number of points for this assignment is 20.

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[10] 1. Use basic definitions to prove that if  $\mathcal{P}(A) = \mathcal{P}(B)$ , then  $A = B$ .

[10] 2. Use mathematical induction to prove  $5x^2 + x + 10 < x^3$ , for all integers  $x \geq 6$ .