Latex Homework 9th Grade
Unit 1 - Methods of Proof - Formal Style of a Proof
Week 4 - Set Theory

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1

How many subsets of the set $\{0, 1, 2, 3, 4, 5, 6\}$ have elements which sum to 15? You should list them all.

2

Let A and B be subsets of a set Z. Prove that $(Z \setminus A) \cup (Z \setminus B) = Z \setminus (A \cap B)$.

Proof. Let $x \in (Z \setminus A) \cup (Z \setminus B)$. If $x \in Z \setminus A$, then $x \in A$. $\square$

3

Consider sets A, B, and C. Prove that $A \times (B \cup C) = (A \times B) \cup (A \times C)$.