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Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) List all of the subsets of $\{1,3,5\}$.
2. (1 point) Let $A$ be the set of letters of the word MISSISSIPPI. What is the only subset of $A$ that is NOT a proper subset?
3. (1 point) Suppose that $A$ is a set with $n(A)=10$. How many subsets does $A$ have? Do not attempt to list them.
4. (1 points) Explain why $\{0,1,2,3,4\}$ is NOT a subset of $\mathbb{N}$.
5. (5 points) In this problem, the universal set is the set of natural numbers, $\mathbb{N}$. Also, let $A=\{x \mid x \in \mathbb{N}$ and $-3<x<4\}$, $B=\{x \mid x \in \mathbb{N}$ and $x>7\}$, and $C=\{1,2,3,4,5,6,7,8,9,10\}$.
(a) Write $A$ in roster notion.
(b) Determine $B^{\prime}$.
(c) Determine $A \cup C$.
(d) Determine $B \cap C$.
(e) Determine $A \cap \emptyset$.
