A Recap of Set Theory

set-builder

is an element of

Given:

The universal set U = {x | 0 < x < 10 and x ∈ W}

roster: {1, 2, 3, 4, 5, 6, 7, 8, 9}

A = {2, 4, 6, 8} B = {4, 5, 6, 7} C = {1, 3, 5, 9}

Terms to Know:

complement $\bar{A} = \{1, 3, 5, 7, 9\}$

~A $\bar{A}$ A′

subset

$\subseteq$ $\subset$ $A \subseteq U$ $A \subset U$

cardinality

| | $|A| = 4$ $|U| = 9$

union

$\cup$ $A \cup B = \{2, 4, 5, 6, 7, 8\}$

intersection

$\cap$ $A \cap B = \{4, 6\}$

difference set

— $A - B = \{2, 8\}$

symmetric difference

$\oplus$ $A \oplus B = \{2, 5, 7, 8\}$

disjoint $A \cap C = \{\}$ OR $\emptyset$

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