

10/11

Thursday, October 11, 2012
10:00 AMUnit 3: Linear Equations & InequalitiesSets

{a collection of unique items (#'s)}

 \in elements: #'s, items listed in the set. (no repetition)~~Ex:~~ (1) set $A = \{3, 6, 9\}$ how many elements? 3 U = universe (all/everything) "big set" C subset = small part of universe.set $A = \{3, 6, 9\}$ $3 \in A$ "3 is an element of A" $5 \notin A$ "5 is not an element of A"set $B = \{3, 6, 9, 12, 15\}$ $A \subset B$ "A is a subset of B"
(all A is from B) $B \not\subset A$ "B is not a subset of A" \cup (union) = all list everything \cap (intersection) = what they have in common. \emptyset = null $\{\}$ = empty set

A' or A^c or \bar{A} (complement) = NOT in A

$$U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$A = \{1, 2, 3, 4\} \quad B = \{2, 4, 6\} \quad C = \{1, 3, 5\}$$

$$A = \{5, 6, 7, 8, 9, 10\} \quad A \cap B = \{2, 4\} \quad A \cup B = \{1, 2, 3, 4, 6\}$$

$$B \cap C = \emptyset \text{ or } \{ \}$$

$$B^c = \{1, 3, 5, 7, 8, 9, 10\}$$

$$\bar{A} \cap \bar{B} = \{5, 7, 8, 9, 10\}$$

$$\bar{A} \cup \bar{B} = \{1, 3, 5, 6, 7, 8, 9, 10\}$$