

June 22, 2015
 * Exam #1 - Thursday
 1.1 - 1.3 & 2.1 - 2.3

Jun 22-11:12 AM

$$(A \cup B)' = A' \cap B'$$

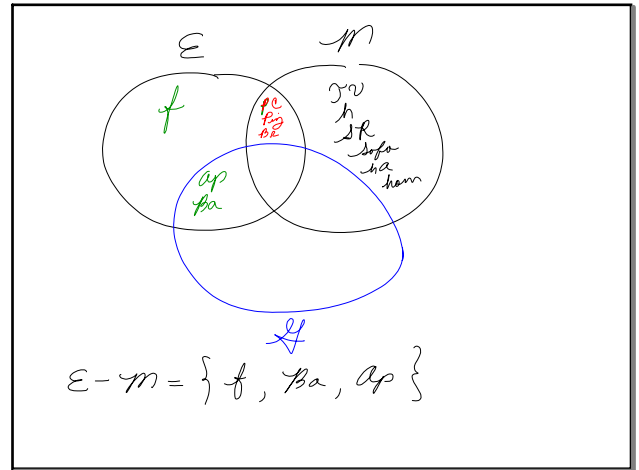
See 6/18/2015 notes

$$* (A \cap B)' = A' \cup B'$$

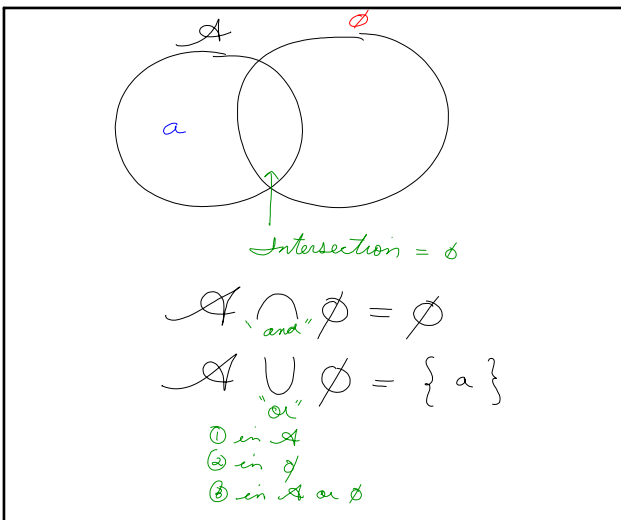
Jun 22-11:16 AM

2.3
 #15) $E - M$
 $E = \{y \mid y \text{ is edible}\} = \{\text{apple, fish, potato chip, bread, banana, pizza}\}$
 $M = \{x \mid x \text{ is man-made}\} = \{\text{TV, h, s.R, ha, hamon}\}$

Jun 22-11:21 AM



Jun 22-11:26 AM



Jun 22-11:34 AM

$\{1, 2, 3, 4\}$
 List 2 member subsets
 * order does not matter.
 $\{1, 2\}, \{1, 3\}, \{1, 4\}, \{2, 3\}, \{2, 4\}, \{3, 4\}$

Jun 22-11:41 AM

$A = \{1, 2, 3, 4, 5, 6\}$
 $B = \{2, 4, 6, 8, 10\}$

$n(A) = 6$
 $n(B) = 5$
 $* n(A \cup B) = n(A) + n(B) - n(A \cap B)$
 $n(A \cap B) = 3 = 6 + 5 - (3) = 11 - 3 = 8$

Jun 22-11:46 AM

$A = \{12, 13, 15, 16\}$
 $B = \{13, 14, 16, 17\}$
 $C = \{15, 16, 17, 18\}$

$*1 A \cap (B \cup C)$
 $*2 (A \cap B) \cup (A \cap C)$

$\{ \} \cup \{ \}$
 $\{ \}$
 $\text{So, is } A \cap (B \cup C) = (A \cap B) \cup (A \cap C)?$
Then "Intersection" over "distributes" over "multiplication" "distributes over addition"

$x \cdot (x + 4) = x \cdot x + x \cdot 4$
 $= x^2 + 4x$

Jun 22-11:55 AM

$2 \cdot 2 = 2^2$
 Proper subset
 $A \subseteq B \neq A = B$
 $2^n = 2^5 = 32 \text{ subsets}$

Jun 22-12:26 PM