

Ayudantía 2 Simplificación de Expresiones

1.- Demostrar:

$$a) A - (B - C) = (A - B) \cup (A \cap C)$$

$$b) \{ [(A^c \cup B) - (A \cup B)^c] \cup B^c \} = U$$

$$c) (B \cap C) - [(A \cap B) \cup (C \cup A)] = \Phi$$

$$d) A \cup (B - C) = A \cup B - (C - A)$$

$$e) B \cap [(B^c \cup A)^c \cup (A \cup B)^c] = B - A$$

$$f) (A \cup B)^c \cap C = (C - B) - A$$

2.- Simplificar:

$$a) [(A - B)^c \cup (B - C)^c \cup (C - A)^c]^c$$

$$b) \{ [(C^c \cap B^c) \cup (B \cup C)^c] - (B \cup C) \} - (B \cup C)^c$$

$$c) [(A \cup B^c)^c \cap (A^c \cup B^c)] \cup (A^c \cap B^c)$$

$$d) A^c \cap [(A - B) \cap (A \cap B^c)]^c$$

$$e) A \cup [(A - B) \cap B] \cup (A^c \cup B)^c$$

$$f) [(A^c \cup B) - (A \cup B)^c] \cup B^c$$