3.38

Si $\underbrace{C \subseteq A}_{\text{HIP}} \Rightarrow A \setminus (B \setminus C) = \boxed{(A \setminus B) \cup C}$

Si $C \subseteq A$ — Deducimos que $\begin{cases} C \cap A = C \\ C \cup A = A \end{cases}$

$$A \setminus (B \setminus C) \overset{x \setminus y = x \cap \bar{y}}{=} A \setminus (B \cap \bar{C}) = A \cap \overline{(B \cap \bar{C})} \overset{\text{Demorgan}}{=} A \cap (\bar{B} \cup \bar{\bar{C}}) \overset{\text{distributiva}}{=} (A \cap \bar{B}) \cup (A \cap C) = (A \cap \bar{B}) \cup C \overset{x \setminus y = x \cap \bar{y}}{=} \boxed{(A \setminus B) \cup C}$$

doble negación

$$A \cup B = A \cup C \wedge A \cap B = A \cap C$$

Hip: $\begin{cases} [A \cup B = A \cup C] \equiv H_1 \\ [A \cap B = A \cup C] \equiv H_2 \end{cases}$

$B = \begin{cases} B \cup \emptyset = B \cup (A \cap \bar{A}) \\ B \cap \mathcal{U} = B \cap (A \cup \bar{A}) \\ B \cap (A \cup B) \\ B \cup (A \cap B) \end{cases}$