

e. (1 Punkte) Minimiert die folgende Funktion (Hinweis: Idempotenz),

$$Y = (A \wedge B \wedge C) \vee (A \wedge B \wedge \bar{C}) \vee (A \wedge \bar{B} \wedge C)$$

$$\begin{aligned} Y &\equiv (A \wedge ((B \wedge C) \vee (B \wedge \bar{C}))) \vee (A \wedge \bar{B} \wedge C) \\ &\equiv (A \wedge (B \wedge (C \vee \bar{C}))) \vee (A \wedge \bar{B} \wedge C) \\ &\equiv (A \wedge (B \wedge T)) \vee (A \wedge \bar{B} \wedge C) \\ &\equiv (A \wedge B) \vee (A \wedge \bar{B} \wedge C) \\ &\equiv (A \wedge B) \vee (A \wedge (\bar{B} \wedge C)) \\ &\equiv A \wedge (B \vee (\bar{B} \wedge C)) \\ &\equiv A \wedge ((B \vee \bar{B}) \wedge (B \vee C)) \\ &\equiv A \wedge (T \wedge (B \vee C)) \\ &\equiv A \wedge (B \vee C) \\ &\equiv (A \wedge B) \vee (A \wedge C) \end{aligned}$$