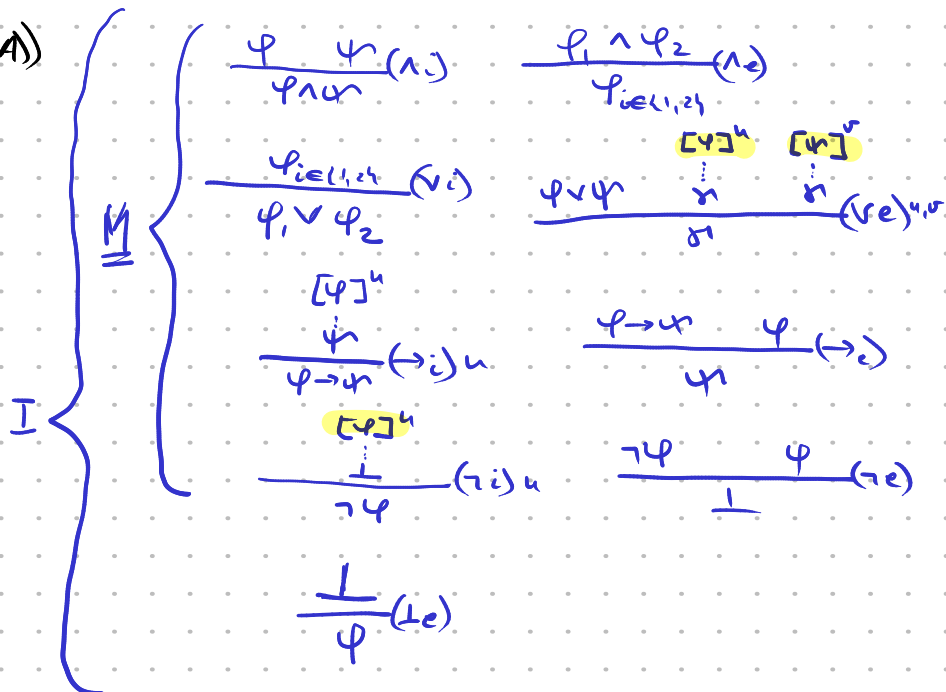
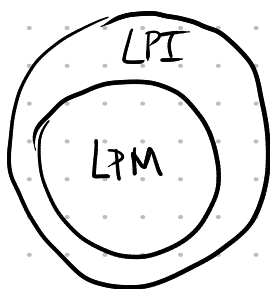


Exercício 3: $\vdash_m \neg\neg(A \vee \neg A)$



$$\frac{[\neg(A \vee \neg A)]^u}{\frac{\frac{\frac{\perp}{\neg A} (i) u}{A \vee \neg A} (v_i) \quad [\neg(A \vee \neg A)]^u}{\perp} (\neg e)} \quad \frac{[A]^v}{A \vee \neg A} (v_i) \quad \frac{A \vee \neg A}{\neg(A \vee \neg A)} (\neg e)$$