

Problem 3: Alternative Approaches

Part A: CNF

$((\neg \text{Mythical} \vee \text{Immortal}) \wedge (\text{Mythical} \vee \neg \text{Immortal})) \wedge$
 $((\neg \text{Immortal} \vee \text{Horned}) \wedge (\neg \text{Mammal} \vee \text{Horned}) \wedge$
 $(\neg \text{Horned} \vee \text{Magical}))$

Part B: Resolution

We add Horned to our knowledge base.

We resolve Horned and $(\neg \text{Horned} \vee \text{Magical})$ and get Magical

We resolve Magical and $(\neg \text{Horned} \vee \text{Magical})$ and get $\neg \text{Horned}$

We have that it is Horned and $\neg \text{Horned}$ which is a contradiction so the unicorn is not Horned.