from logic import \*

rain = Symbol("rain")

hagrid = Symbol("hagrid")

dumbledore = Symbol("dumpledore")

logical\_sentence = And(rain, hagrid)

print(logical\_sentence.formula())

implication\_logic = Implication(Not(rain), hagrid)

print(implication\_logic.formula())

knowledge\_base = And(Implication(Not(rain), hagrid),

   Or(hagrid, dumbledore),

   Not(And(hagrid,dumbldore)),hagrid)

print(knowledge\_base.formula())

print(model\_check(knowledge\_base, rain))