

CISC 3410 Fall 2012, Homework 6

1. Using the predicates $P(x)$ to denote “ x is a politician”, $R(x)$ to denote “ x is rich”, $L(x)$ to denote “ x is a lobbyist” and $K(x, y)$ to denote “ x knows y ”, write down first order logic, complete with variables and quantifiers to express:
 - (a) All lobbyists are rich.
 - (b) Some politicians are rich.
 - (c) All politicians know a rich lobbyist.
 - (d) Some lobbyists know a rich politician
 - (e) Everyone knows a rich politician or a rich lobbyist.