First order logic not on exam

Probabilistic logic on exam

Walk through simple prof

Here is a database, show {forward chaining/resolution algorithm} query on it

Horn clause

Definite clause

Monotonic path costs (lec 5 slide 27)

Costs never go down

f,g,h

g never goes down – as we go node to node

understand n queens how it functions

cant be on same row, same diagonal

understand how the constraints work etc

h admissible – never overestimates

not useful if == 0

have it close to actual cost to goal but doesn’t go over

which algo is better

the answer could be – they are the same

A\* needs positive values or it doesn’t work

Seq A\* - like depth first search

Likely to take longer than parallel if starting from every state

Reuses space so will never hold more than longest path full of nodes

Par A\* - once ideal path detected, never go down long paths again

Uses more nodes – at the beginning at least holding all lists in parallel at once

BFS only optimal if path costs are uniform (all 1 or all 6 etc)

AB

AC

ABD

ABE

ABCDEF

A – B – F

Stop at either goal state

DFS

ABD

ABEH

ABEI

**ABF**

A\*

ACGJ

F = 6 = shortest path (2 + 3 + 1)

BDEF in queue at end

ACF – still in