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	TLABTE AND THE MAN TO	
	KNOWLEDGE BASE ENTAILMENT	
	Last red 2 1 121 1 Lecross b	_
	Entailment refers to the logical relationship	
	between a kB and a gury	_
	If KB entails a statement, it means that	_
	whenever the Statement in the KB are true,	_
· ·		_
4	the given query is also true.  KB = 10	_
	(N. d. con 2 ) 110 00 . 00 (1)	_
	Knowledge Base:	_
	V	_
	If its raining (P) then the ground is wet.  If the ground is not (Q), then the plants will	_
,	If the ground is not (Q), then the plants will	_
	grow (2)	(
•	grow (R)  9ts not the case that plants will grow (~R)	_
		_
	Query: whether it's raining?	_
+		
	Code:	
	from sympy import symbols	_
•	def create-knowledge-base()	
	p = 2y mbols ('p')	
19	q = symbols ('q')  7 = symbols ('T')	
	r= symbols ('r')	
	[	-
	knowledge-base = And (Implies (p, q) Implies(gi)	1
	Not(r))	1
	return knowledge-base.	1
		1
		1
		-

	Page Sili
	det auer entails (knowledge have auery):
-	def query-entails (knowledge-base, query); entailment = satisfiable (And (knowledge-base
	Not ( avery ) )
	No+ (quey)))
-	return not entailment
<u> </u>	76 10, 7
	1f _name_ = = "_main_"
	Kb = create_knowledge_base()
	query = symbols ('p!)
R	runt: gury-entails (kb, query)
·	print ("knowledge Base: ", kb)
III.	
+	print ("Query: ", opery)
1	print ("launy entatts knowledge base:", result
0 .6	1-
V La Co	Explaination: = Entails
No Salt	District to the contract of the street
1. antin	X = B, iff in every model where & is true,
	b is much and a contract to the second
-	2 = 3 if (id/~ B) is unsatisfiable.
	Output: () !
14.4	DELESTINGUAL STRIPPINES 1 2 109
	knowledge base: Nr & (Impries (p,q)) A (Impries (q,r)
V	
-	aury - p
+	Querry entails knowledge base: Fals c
11. 11. 2 may 1	tous of (see all restrict) 3.5
e), with spine	lugad di tess
12 kl	al social of the bound of the second
	2000 D. J
	المن من من من من من المناسب و المناسب
	should by to stown as I am the

Harshitha R-1BM21CS075 Knowledge Base: ~r & (Implies(p, q)) & (Implies(q, r)) Query: p Query entails Knowledge Base: False