Logic, First Course, Winter 2020. Week 4, Practice Problems. Back to course website

Week 4, Practice Problems

The practice problems in this set fall into four groups:

- Atomic statements
- Simple quantifier statements
- Multiple quantifier statements
- Connecting properties

Before you begin the homework, you might consider printing a copy either to work out by hand as you go along, or to work with on a tablet. A nice pdf of this page is at INSERT The solutions are here. INSERT

Atomic statements

In the following problems we use the following key:

a = "Angel"

b = "Briana"

c = "Cole"

d = "Daniela"

C = "is a congressman"

D = "is a Democrat"

J ="is a judge"

S = "is senator"

R = "is a Republican"

Remember that you have to "select all" and delete the entry in the first box, and then you have to press **return** at the end of the problem. If you need a refresher on how to type the propositional connectives on the keyboard, please consider reviewing Typing the connectives on the keyboard.

Angel is a congressman and Angel is a Democrat.
Argual is a constant on Driens is a constant
Angel is a senator or Briana is a senator.
If Daniela is a Democrat then Cole is a Republican.
If Priana is a judge than Priana is not a constar
If Briana is a judge then Briana is not a senator.
Angel is a judge or Briana is a judge or Cole is a judge

Simple quantifier statements

In the following problems, we use the key:

a = "Angel"
b = "Briana"
c = "Cole" d = "Daniela"
C = is compassionate
B = is brave
H = is honest
Everyone is honest but not everyone is compassionate.
Someone is brave and someone is compassionate.
If Cole is brave and Cole is not honest, then someone is brave and not honest.
If everyone is not compassionate, then Briana is not compassionate and Cole is not compassionate.

Someone is brave and someone is honest, but everyone is not brave or not honest.

Multiple quantifier statements



a = "Angel"

b = "Briana"

c = "Cole"

d = "Daniela"

H = "is happy"

R = "is responsible"

O = "on time"

Someone is on time and someone is not on time.

If Angel is on time and Briana is not on time, then someone is on time and someone is not on time.

= "is high-quality" = "is a musical" = "is popular"	ryone is not on time and everyone is not ha	nnov.
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All musicals are high-quality.		
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Some music	cals are thrill	ers.		
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ir some thri	lers are pop	ular, then all	inrillers ar	e popular.
Some music	cals are popu	ular and some	e musicals	are not popular.
Not all thrill	ers are popu	lar but all hig	h-quality	thrillers are popular.
s is a practice	problem set for	or this course.	It is run on	the Carnap software, which is an:
Onen Tewer is	raigat Capyria	sht 2015_2010	G Leach-K	rouse <gleachkr@ksu.edu> and J.</gleachkr@ksu.edu>

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