

# Math 2283 - Introduction to Logic

Quiz #1 - 2006.08.23

Name: \_\_\_\_\_

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References:

$c$  refers to Clyde Frog

$e$  refers to Eric

$p$  refers to Peter Panda

$r$  refers to Rumpletumskin

Predicates:

$Dx$  is “ $x$  drinks tea”

$Lx$  is “ $x$  likes tea parties”

$Twxyz$  is “ $w$  will invite  $x$ ,  $y$  and  $z$  to a tea party ”

$Sxy$  is “ $x$  is more strong and handsome than  $y$ ”

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Using the references and predicates given above, write English statements that express the meaning of the following formulas.

1.  $Dr$

2.  $Sce$

3.  $Dp \vee Lp$

4.  $Lc \wedge Lp \wedge Lr \Rightarrow Tecpr$

Using the references and predicates given above, write the formulas that express the meanings of the following sentences.

1. Clyde Frog does not like tea parties but does drink tea.

2. If Rumpletumskin drinks tea and Eric likes tea parties, then Eric will invite Rumpletumskin, Peter Panda and Clyde Frog to a tea party.