

# Math 2283 - Introduction to Logic

Quiz #8 - 2010.10.01

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

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Recall, if you will, that we were able to define the relation of a class  $K$  being a *subclass* of the class  $L$  ( $K \subset L$ ) in terms of elements of the universe of discourse:

$$K \subset L \leftrightarrow \forall x (x \in K \rightarrow x \in L)$$

Let us use the symbol  $\diamond$  to represent the relation of being *disjoint*. Construct a definition of the classes  $K$  and  $L$  being disjoint ( $K \diamond L$ ) in terms of the elements of the universe of discourse:

$$K \diamond L \leftrightarrow \forall x \left( \right)$$