

## II. UNIVERSAL PROPERTY, TENSOR PRODUCT OF VS REVISITED

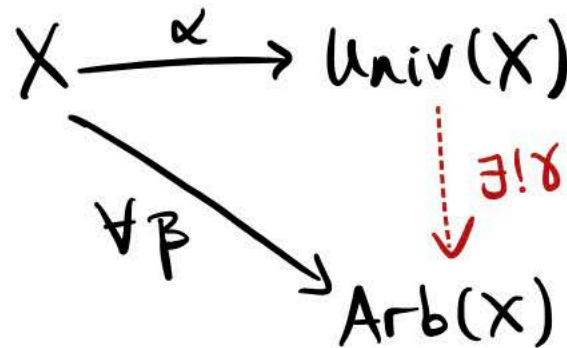
GIVEN A GADGET  $X$ ,

A UNIVERSAL STRUCTURE ATTACHED TO  $X$

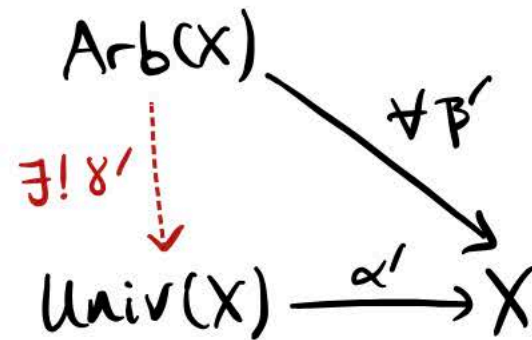
IS A STRUCTURE  $Univ(X)$

SUCH THAT  $\forall$  ARBITRARY STRUCTURES  $Arb(X)$  ATTACHED TO  $X$

$\exists!$  STRUCTURE-PRESERVING MAP MAKING THE DIAGRAM COMMUTE:



FORM I



FORM II