Quantifier rules: universal elimination

WEEK 7 . TOPIC INTRODUCTION

UNIVERSAL ELIMINATION

1. ∀X**Φ**(x)
2. **Φ**[x/c] E∀1

The **φ**[x/c] part means ‘Take **φ** and replace every instance of x with c’

For this rule, you can pick *any name you want* for c.

UNIVERSAL ELIMINATION

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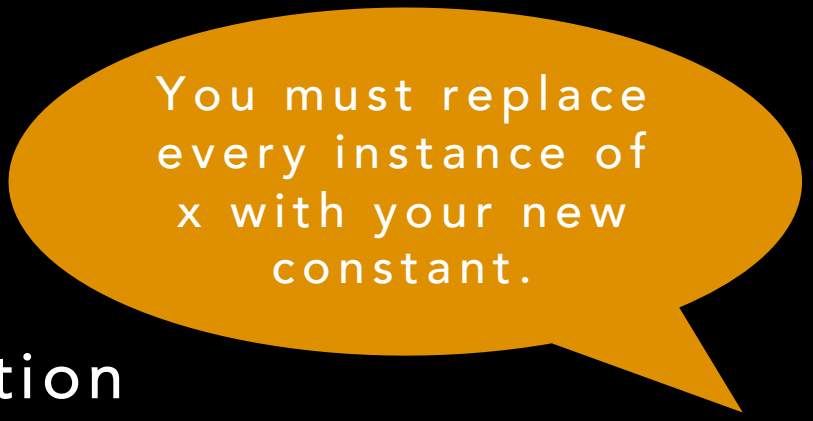

E.g.:

1. ∀x(Fx→ Gx) :assumption
2. Fa→ Ga :E∀1

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UNIVERSAL ELIMINATION

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The Φ[x/c] part means 'Take Φ and replace every instance of x with c'

Check-in: Does this make sense? Why can I replace a variable with *any* constant I want?

A: Because the universal quantifier is saying that for all objects, such and such is true!