Associating Constants with Sets

- Each HOL c is associated with an ST $|\mathsf{c}|$
  - if c is monomorphic then $|\mathsf{c}|\ :\ V$
  - if type of c contains n variables then

$$|\mathsf{c}|\ :\ \underbrace{V\to\ \cdots\ \to V}_{n}\to V$$

- Example 1: addition (curried in HOL)
  - in HOL $\ +\ :\ num\to(num\to num)$
  - in ST $\ |+|\ :\ V$
- Example 2: existential quantifier
  - in HOL $\ \exists\ :\ (\alpha\to bool)\to bool$
  - in ST $\ |\exists|\ :\ \mathtt{V}\to V$