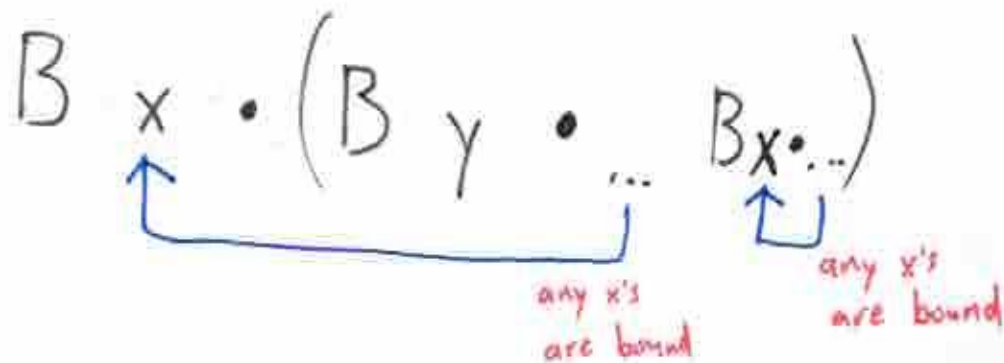


Consider terms of this shape, where  $B$  is some variable binder.



uncurried

$$\text{plus} : \mathbb{N} \times \mathbb{N} \rightarrow \mathbb{N}$$

$$\text{so. eg. } \text{plus}(4, 5) = 9$$

Curried

$$\text{plus}' : \mathbb{N} \rightarrow \mathbb{N} \rightarrow \mathbb{N}$$

$$\text{so e.g. } (\text{plus}'(4)) : \mathbb{N} \rightarrow \mathbb{N} \quad \text{this is partial application}$$

$$\text{and } (\text{plus}'(4))(5) = 9$$

$$\text{More briefly: } \text{plus}'(4)(5) = 9$$

$$\text{plus}' \ 4 \ 5 = 9$$

we usually drop parentheses for curried functions

first or const

$$(\lambda x \rightarrow \lambda y \rightarrow x) 5$$

$$= \lambda y \rightarrow 5$$