

# A definition of type containment in Haskell

- Type instantiation (with a concrete type)
  - ▶  $\text{Maybe } a \succ \text{Maybe Int}$
  - ▶  $\text{Show } a \Rightarrow a \rightarrow \text{String} \succ \text{Bool} \rightarrow \text{String}$
- Swapping argument order
  - ▶  $A \rightarrow B \rightarrow C \cong B \rightarrow A \rightarrow C$
- “Inlining” non-recursive types which have a single constructor
  - ▶  $\text{data } (,) \text{ a b where } (,) :: a \rightarrow b \rightarrow (a, b)$
  - ▶  $(a, b) \rightarrow c \cong a \rightarrow b \rightarrow c$