Q2 Type Inference

- Does there exist an instantiation for the type variables α and β s.t

  fun x y -> (x y) + 2.0 has type $\alpha \Rightarrow \beta$ in Ocaml

Answer: clearly not since '+' expects two ints, however '2.0' is a float so we have a type error.

- Does there exist an instantiation for the type variables α, β, γ, and δ s.t.

  fun u w x -> u (w x) || (u 2.0) has type

$$(\alpha \Rightarrow \beta \Rightarrow \gamma) \Rightarrow \delta$$

Answer: Yes

α = (float -> bool)
β = ('a -> float)
γ = 'a
δ = bool