Unlike other languages, Haskell does not provide universal stringification (Show/ print) or equality (Eq (value equality))  $\dots$ 

## 1 Type-defaulting typeclasses

When we evaluate a polymorphic value, the polymorphism must be resolved to a specific concrete type.

 ${\bf Definition: Type class\ inheritance}$ 

Typeclass inheritance is when a typeclasses has a superclass. A typeclasses requires another typeclasses to be available for a given type before you can write an instance.

 ${\bf Definition: \underline{Effects}}$ 

Effects are how we refer to observable action programs may take than compute a value.

 ${\bf Definition: Instance}$ 

An instance is the definition of how a typeclass should work for a given type.

## 2 Typeclass inheritance, partial