In general, we can show that inductive types are discrete and segal, as they offer no higher homotopical and simplicial data. We start with Unit.

define Unit in section 2

Lemma 0.1. *Unit is discrete*

Proof. It suffices to show that the map induced by idtoarr between total spaces

$$\sum_{v:\text{Unit}} u = v \to \sum_{v:\text{Unit}} \hom_{\text{Unit}}(u, v) \tag{1}$$

is an equivalence. The domain is contractible as it is a based path space. In the codomain, both u and v compute to $\star$, so it suffices to show $\hom_{\text{Unit}}(\star, \star)$ is contractible. This is immediate as

$$\left\langle \Delta^1 \to \text{Unit} \middle|^{\partial\Delta^1}_{[\star,\star]} \right\rangle \tag{2}$$

has contractible fibers, thus the entire extension type is contractible by relative function extensionality. □

We also expect the type of natural numbers to be discrete too.

define natural numbers

Lemma 0.2. $\mathbb{N}$ *is discrete.*

Proof. □

The unit type corresponds to the category with one object and one morphism (the identity).