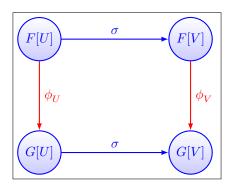
## Isomorphism of Species

## Definition

Let, F, G be two Combinatorial Species,

We say that,

 $F\cong G\iff \forall U\in\Omega\exists\phi_U:F[U]\longrightarrow G[U]\ni\phi_U\text{ is a bijection which respects transport of structure}.$ 



Transfer of structure by  $\phi_U$ 

More formally speaking,  $\forall F,G:$  Combinatorial Species,  $F\cong G\iff \forall \sigma:U\longrightarrow V\in \Gamma, \phi_V\circ F[\sigma]=G[\sigma]\circ \phi_U$ 

## Example

$$\mathcal{I}nv_0[U]$$