Definition (Drawings)

There exists a category **Draw** in which:

1. An object in $\alpha \in \mathrm{Ob}_{\mathbf{Draw}}$ is a black-and-white drawing, that is a function $\alpha : \mathbb{R}^2 \to \mathbf{Bool}$.
2. A morphism in $\mathrm{Hom}_{\mathbf{Draw}}(\alpha;\beta)$ between two drawings α and β is an invertible map $f : \mathbb{R}^2 \to \mathbb{R}^2$ such that $\alpha(x) = \beta(f(x))$.
3. The identity function at any object α is the identity map on $\mathbb{R}^2$.
4. Composition is given by function composition.