Definition (Drawings)

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

1. An object in $\alpha \in \mathrm{Ob}_{\textbf{Draw}}$ is a black-and-white drawing, that is a function $\alpha : \mathbb{R}^2 \to \textbf{Bool}$.

2. A morphism in $\mathrm{Hom}_{\textbf{Draw}}(\alpha; \beta)$ 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.