Definition (Semi-functor). A *semi-functor* $F : \mathbf{C} \to \mathbf{D}$ between two semi-categories is defined by a map

$$F_{\mathrm{ob}} : \mathrm{Ob}_{\mathbf{C}} \to \mathrm{Ob}_{\mathbf{D}}.$$

and, for every pair of objects X, Y, a map

$$F_{\mathrm{mor}} : \mathrm{Hom}_{\mathbf{C}}(X; Y) \to \mathrm{Hom}_{\mathbf{D}}(F_{\mathrm{ob}}(X); F_{\mathrm{ob}}(Y))$$

such that

$$\frac{f : X \to_{\mathbf{C}} Y \quad g : Y \to_{\mathbf{C}} Z}{F_{\mathrm{mor}}(f \fatsemi g) = F_{\mathrm{mor}}(f) \fatsemi F_{\mathrm{mor}}(g)}.$$