

$$\mathrm{Hom}_{\mathbf{qAff}}(X, Y_1) \xleftrightarrow{\sim} \mathrm{Hom}_{\mathbf{k}\text{-Alg}}(A(Y_1), \mathcal{O}(X))$$

$$\downarrow$$

$$\downarrow$$

$$\mathrm{Hom}_{\mathbf{qAff}}(X, Y_2) \xleftrightarrow{\sim} \mathrm{Hom}_{\mathbf{k}\text{-Alg}}(A(Y_2), \mathcal{O}(X))$$