Definition (Adjunction, Version 1)

Let **C** and **D** be categories. An *adjunction* from **C** to **D** is given by the following data:

1. A functor $L : \mathbf{C} \to \mathbf{D}$ (the *left adjoint*);

2. A functor $R : \mathbf{D} \to \mathbf{C}$ (the *right adjoint*);

3. A natural isomorphism $\tau : \mathrm{Hom}_{\mathbf{D}}(L-; -) \Rightarrow \mathrm{Hom}_{\mathbf{C}}(-; R)$

We use the notation $L \dashv R$ to indicate that L and R form an adjunction, with L the left adjoint and R the right adjoint.