Definition (Algebra of a monad)

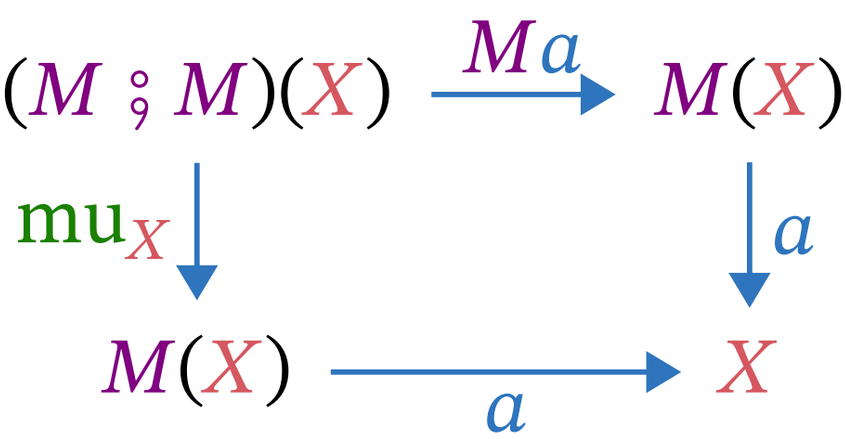
Let $\langle M, \mathrm{mu}, \mathrm{un}\rangle$ be a monad on a category $\mathbf{C}$. An algebra of M (also called an M-algebra) is specified by:

Constituents

1. an object X of $\mathbf{C}$;
2. a morphism $a : M(X) \to X$ of $\mathbf{C}$.

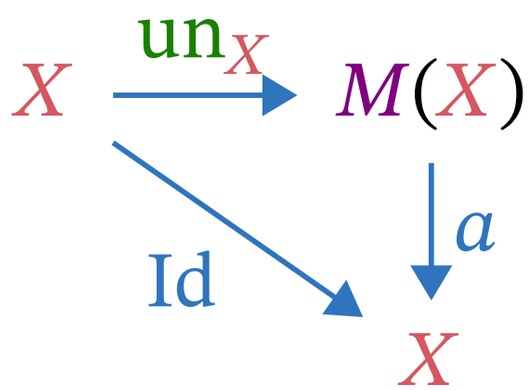
Conditions

1. *Composition*: the diagram



commutes.

2. *Unit*: the diagram



commutes.