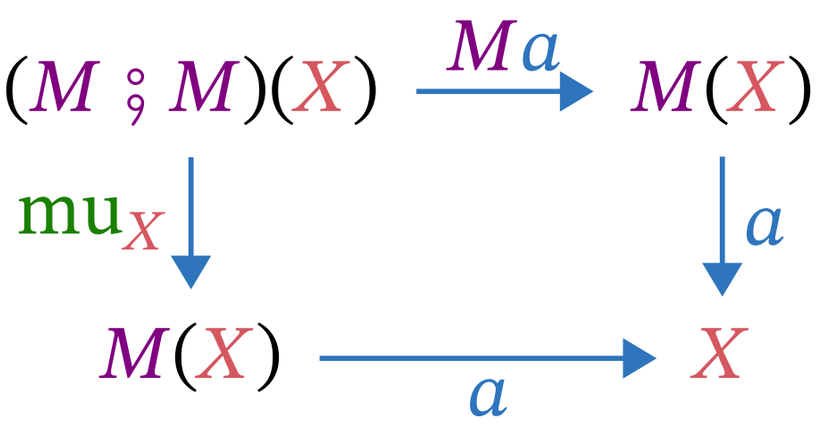
Definition (Algebra of a monad). Let $\langle M, \mathrm{mu}, \mathrm{un}\rangle$ be a monad on a category **C**. An algebra of M (also called an M-algebra) is specified by:

Constituents

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

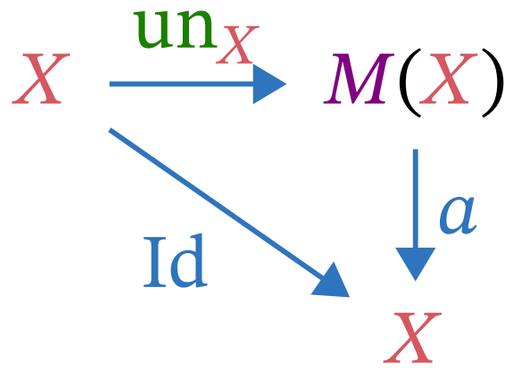
Conditions

1. *Composition*: the diagram



commutes.

2. *Unit*: the diagram



commutes.