# Bounded Integral

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*In this paper I introduce a shorthand notation for bounded integrals.*

A bounded integral `∫f` of a function `f` is defined as following:

$$\int f(x)\,dx \Rightarrow \int f$$

$$f : T \to T$$
$$\int f : T \times T \to T$$ First argument is lower bound, second argument is upper bound

Some properties:

$$(\int f)(a, a) = 0$$
$$(\int f)(a, b) + (\int f)(b, c) = (\int f)(a, c)$$
$$(\int f)(a, a + \varepsilon) = f(a)\varepsilon$$