0.1 Endomorphisms on real functions

We start with our vector $f(x)$.

$h(x) = f(x)g(x)$

The equivalent of the identity matrix is where $g(x) = 1$.

These are similar to endomorphisms where all off diagonal elements are 0.

0.1.1 Differentiation

$$h(x) = \frac{\delta}{\delta x} f(x)$$

0.1.2 Integration

$h(x) = \int_{-\infty}^{x} f(z)dz$