

Functions describe relationships between data. There is input data and output data.

$$x, y, z, t \longrightarrow f \longrightarrow f(x, y, z, t)$$

Function Notation can be confusing:

Leibniz	Lagrange	Newton	Euler			
$\frac{dy}{dx}$	\equiv	$y'(x)$	\equiv	\dot{y}	\equiv	Dy

- sometimes this is due to historical + concurrent discovery
- sometimes particular notation is more useful for certain applications.