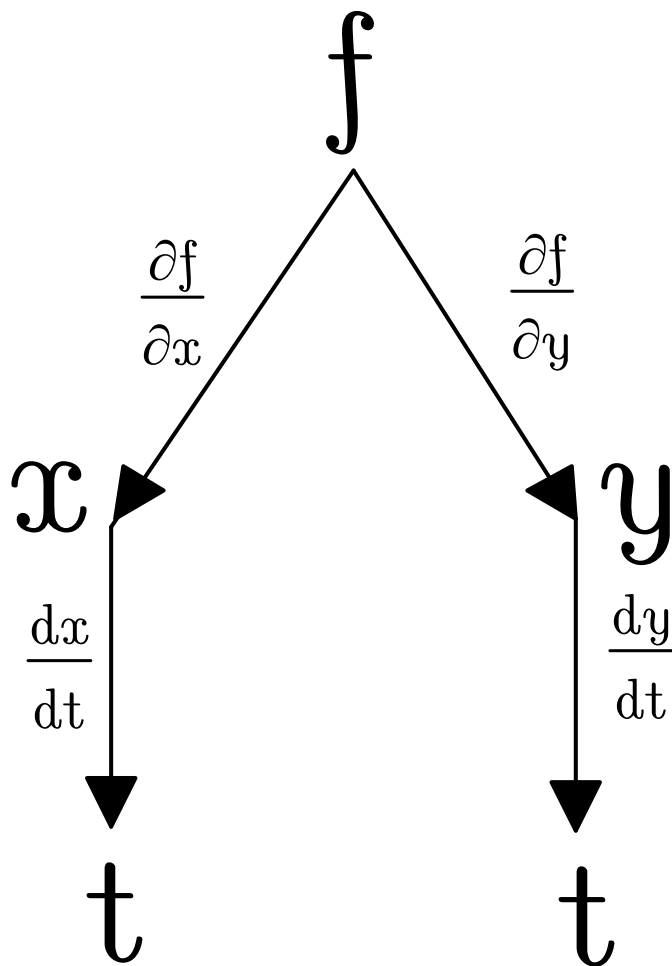


Chain rule for the case where each of  $x$  and  $y$  is a function of  $t$ .

$f(x(t), y(t))$



1) Multiply down the branches, and add across the branches.

$$\frac{df}{dt} = \frac{\partial f}{\partial x} \times \frac{dx}{dt} + \frac{\partial f}{\partial y} \times \frac{dy}{dt}$$