

$$\begin{aligned}
\frac{dy}{dx} + \frac{y}{x} &= \text{sen}(x); \\
\frac{dy}{dx} &= \text{sen}(x) - \frac{y}{x}; \\
\frac{dy}{dx} &= f(x, y); \\
f(x, y) &= \text{sen}(x) - \frac{y}{x};
\end{aligned}$$

$$\begin{aligned}
\frac{dy_1}{dx} &= f_1(x, (y_1, y_2, y_3)); \\
\frac{dy_2}{dx} &= f_2(x, (y_1, y_2, y_3)); \\
\frac{dy_3}{dx} &= f_3(x, (y_1, y_2, y_3)).
\end{aligned}$$

onde a tripla (f_1, f_2, f_3) indica os elementos de um vetor ***f***; da mesma forma, a tripla (y_1, y_2, y_3) indica os elementos de um vetor ***y***. Portanto, eu posso escrever de forma compacta

$$\frac{d\mathbf{y}}{dx} = \mathbf{f}(x, \mathbf{y}).$$