$$\frac{\partial f}{\partial x}$$
$$\frac{\partial f_1}{\partial y}$$
$$\frac{\partial^2 g}{\partial x \partial y_1}$$
$$\frac{\partial^3 g}{\partial x \partial y_2 \partial 4}$$
$$\frac{\partial^5 h_{2,3}}{\partial x_1 \partial 3 \partial x_2 \partial y_4 \partial 6}$$
$$\frac{\partial^2 f}{\partial t \partial 3}$$
$$\frac{\partial^2 f}{\partial t \partial 3}$$
$$\frac{\partial L}{\partial y_\sigma}$$
$$\frac{\partial^2 L}{\partial x_i \partial \frac{\partial y_\sigma}{\partial x_i}}$$
$$\frac{\partial y_\nu}{\partial x_i} \frac{\partial^2 L}{\partial y_\nu \partial \frac{\partial y_\sigma}{\partial x_i}}$$
$$\frac{\partial^2 y_\nu}{\partial x_i \partial x_j} \frac{\partial^2 L}{\partial \frac{\partial y_\nu}{\partial x_j} \partial \frac{\partial y_\sigma}{\partial x_i}}$$
$$\frac{\partial L}{\partial y_\sigma} - \frac{\partial^2 L}{\partial x_i \partial \frac{\partial y_\sigma}{\partial x_i}} - \frac{\partial y_\nu}{\partial x_i} \frac{\partial^2 L}{\partial y_\nu \partial \frac{\partial y_\sigma}{\partial x_i}} - \frac{\partial^2 y_\nu}{\partial x_i \partial x_j} \frac{\partial^2 L}{\partial \frac{\partial y_\nu}{\partial x_j} \partial \frac{\partial y_\sigma}{\partial x_i}} = 0$$
$$\frac{\partial L}{\partial y_\sigma} - \frac{\partial^2 L}{\partial x_i \partial \frac{\partial y_\sigma}{\partial x_i}} - \frac{\partial y_\nu}{\partial x_i} \frac{\partial^2 L}{\partial y_\nu \partial \frac{\partial y_\sigma}{\partial x_i}} - \frac{\partial^2 y_\nu}{\partial x_i \partial x_j} \frac{\partial^2 L}{\partial \frac{\partial y_\nu}{\partial x_j} \partial \frac{\partial y_\sigma}{\partial x_i}} = 0$$