

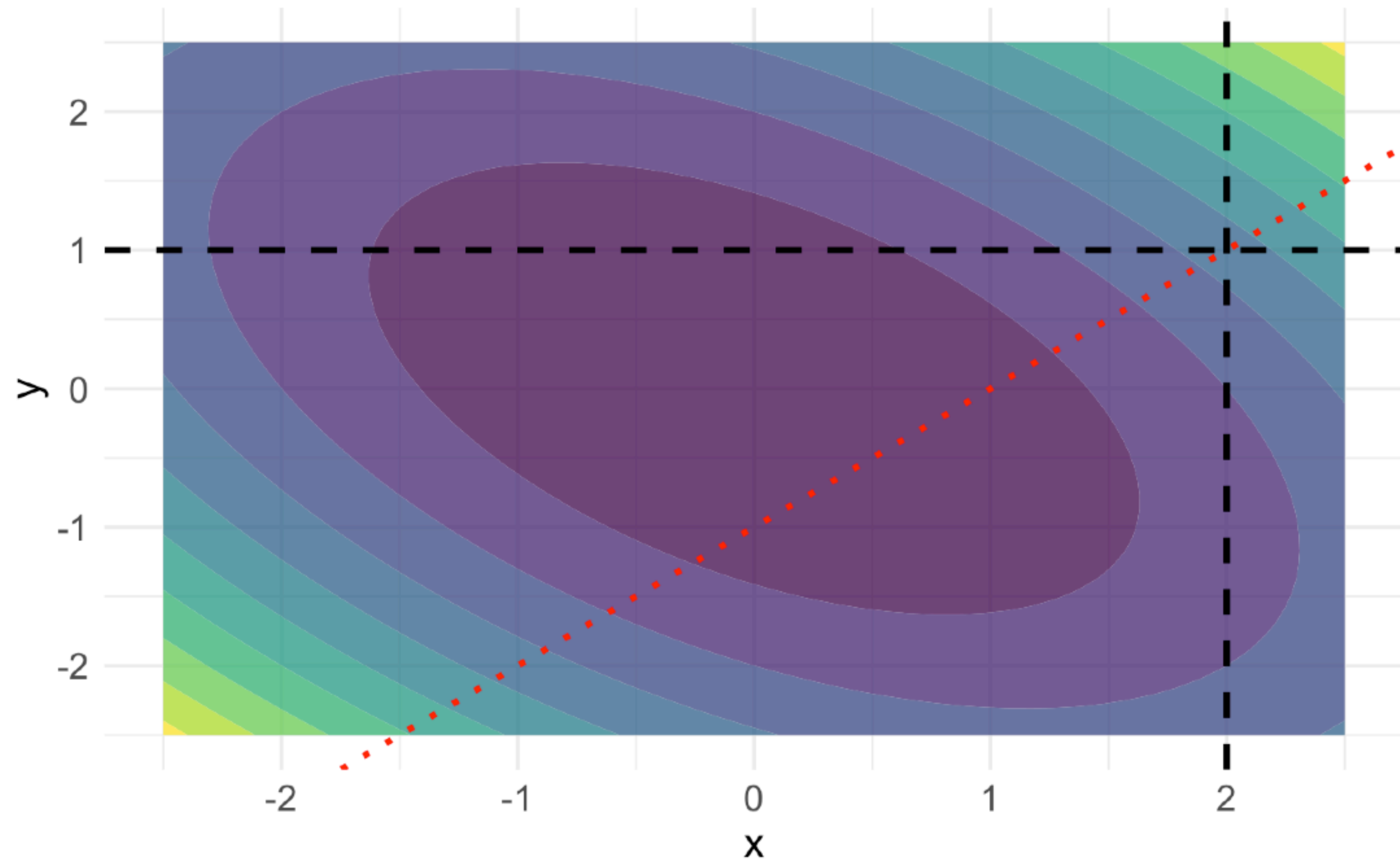
Gradient Descent

$$f(x, y) = x^2 + xy + y^2$$



Step size determined by
Learning Rate ρ :

$$\begin{bmatrix} x_{new} \\ y_{new} \end{bmatrix} = \begin{bmatrix} x \\ y \end{bmatrix} - \rho \begin{bmatrix} \frac{\partial f}{\partial x} \\ \frac{\partial f}{\partial y} \end{bmatrix}$$



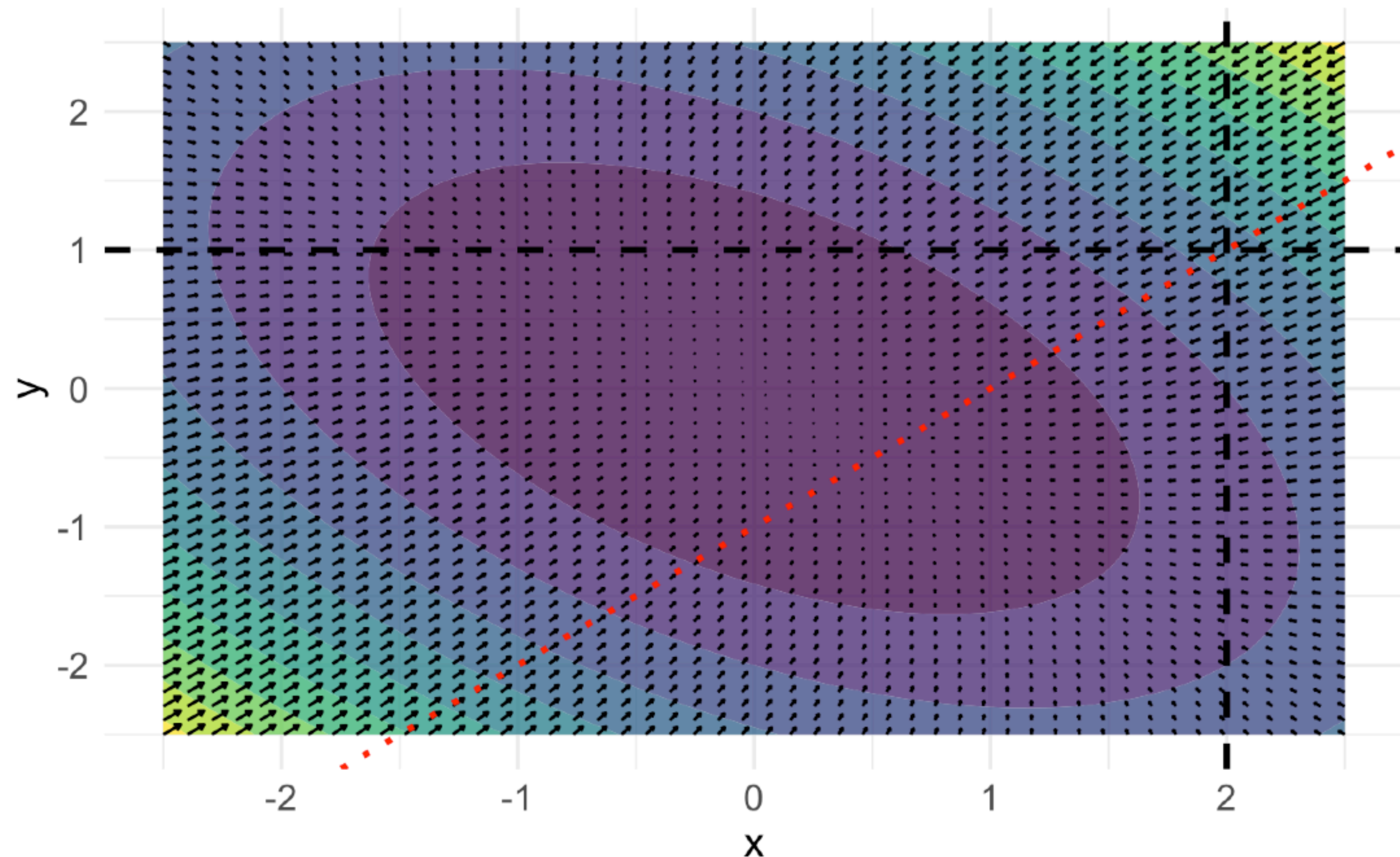
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gradient tells us what adjustments we should make to each of our parameters