$$w_1$$
 $v_2 = w_2 v_1$ $v_3 = \sqrt{v_2}$ $L = v_2 + v_3$ w_1 , $\frac{\partial w_1}{\partial w_1}$ $v_1 = \log w_1$ v_1 , $\frac{\partial v_1}{\partial w_2}$