

```

def backpropa(self, X, answers):
    a = X
    acts = [a]
    zs = []
    # Forward
    for w, b in zip(self.weights, self.biases):
        z = w.dot(a) + b
        a = self.activation_function(z)
        acts.append(a)
        zs.append(z)
    # Backpropa
    net_answers = acts[-1]
    delta = J_deriv(net_answers, answers) * self.act_deriv(zs[-1])
    deltas = [delta]
    for L in range(2, self.nb_layers):
        delta = self.weights[-L+1].T.dot(delta) * self.act_deriv(zs[-L])
        deltas = [delta] + deltas
    # Gradients
    dJdb = [delta.sum(axis=1) for delta in deltas]
    dJdw = [delta.dot(a) for delta, a in zip(deltas, acts[:-1])]
    return dJdb, dJdw

```