



Neural Networks: Learning

Quiz, 5 questions

✖ Try again once you are ready.

Required to pass: 80% or higher

You can retake this quiz up to 3 times every 8 hours.

Back to Week 5

Retake

1 / 1
point

1.

You are training a three layer neural network and would like to use backpropagation to compute the gradient of the cost function. In the backpropagation algorithm, one of the steps is to update

$$\Delta_{ij}^{(2)} := \Delta_{ij}^{(2)} + \delta_i^{(3)} * (a^{(2)})_j$$

for every i, j . Which of the following is a correct vectorization of this step?

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2.

Suppose **Theta1** is a 5x3 matrix, and **Theta2** is a 4x6 matrix. You set **thetaVec** = [**Theta1**(:); **Theta2**(:)]. Which of the following correctly recovers **Theta2**?

0 / 1
point

3.

Let $J(\theta) = 3\theta^4 + 4$. Let $\theta = 1$, and $\epsilon = 0.01$. Use the formula $\frac{J(\theta+\epsilon) - J(\theta-\epsilon)}{2\epsilon}$ to numerically compute an approximation to the derivative at $\theta = 1$. What value do you get? (When $\theta = 1$, the true/exact derivative is $\frac{dJ(\theta)}{d\theta} = 12$.)

0 / 1
point

4.

Which of the following statements are true? Check all that apply.

0 / 1
point

5.

Which of the following statements are true? Check all that apply.

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