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Setting up your
optimization problem

Gradient Checking

Gradient check for a neural network

Take $W^{[1]}, b^{[1]}, \dots, W^{[L]}, b^{[L]}$ and reshape into a big vector θ .

Take $dW^{[1]}, db^{[1]}, \dots, dW^{[L]}, db^{[L]}$ and reshape into a big vector $d\theta$.

Gradient checking (Grad check)



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Gradient Checking
implementation notes

Gradient checking implementation notes

- Don't use in training – only to debug
- If algorithm fails grad check, look at components to try to identify bug.
- Remember regularization.
- Doesn't work with dropout.
- Run at random initialization; perhaps again after some training.