# CS50AI 2020 - Quiz 4 Submission

Total points 4/4

A score of 70% or higher is required to be considered to have "passed" a quiz.

Unlike CS50x, assignments and quizzes in this course are graded on a set schedule, and depending on when you submitted, it may take up to three weeks for your work to be graded. Do be patient! Quizzes (which are submitted via Google Forms and not submit50) will not show up as submitted in your Gradebook until the scores have been released; therefore, we ask that you please do not attempt to submit multiple times before your score is released.

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✓ Categorize the following as supervised learning, reinforcement learning, unsupervised learning, or not machine learning: A social network's AI uses existing tagged photos of people to identify when those people appear in new photos. * 1/1

- ○ Reinforcement learning
- ◉ Supervised learning ✓
- ○ Unsupervised learning
- ○ Not an example of machine learning

✓ Imagine a regression AI that makes the following predictions for the following 5 data points. What is the total L2 loss across all of these data points (i.e., the sum of all the individual L2 losses for each data point)? * 1/1

For data point 1, the true output is 2 and the AI predicted 4. For data point 2, the true output is 4 and the AI predicted 5. For data point 3, the true output is 4 and the AI predicted 3. For data point 4, the true output is 5 and the AI predicted 2. For data point 5, the true output is 6 and the AI predicted 5.

- ○ 0
- ○ 4
- ○ 5
- ○ 8
- ◉ 16 ✓
- ○ 19
- ○ 21
- ○ 64

✓ If Hypothesis 1 has a lower L1 loss and a lower L2 loss than Hypothesis 2 on a set of training data, why might Hypothesis 2 still be a preferable hypothesis? * 1/1

- (●) Hypothesis 1 might be the result of overfitting. ✓
- ( ) Hypothesis 1 might be the result of cross-validation.
- ( ) Hypothesis 1 might be the result of regression.
- ( ) Hypothesis 1 might be the result of regularization.
- ( ) Hypothesis 1 might be the result of loss.

✓ In the ε-greedy approach to action selection in reinforcement learning, which of the following values of ε makes the approach identical to a purely greedy approach? * 1/1

- (●) ε = 0 ✓
- ( ) ε = 0.25
- ( ) ε = 0.5
- ( ) ε = 0.75
- ( ) ε = 1

Comments, if any