

← Back

Module 5 Graded Quiz

Graded Assignment > 30 min

🌐

Due Oct 22, 1:59 PM PDT

📄

⋮

**Your grade: 80%**

Your latest: 80% • Your highest: 80%

To pass you need at least 70%. We keep your highest score.

Next item →

1. The term *Bagging* stands for bootstrap aggregating.

1 / 1 point

☒ True

☐ False

✔ Correct

Correct! You can find more information in the lesson: *Ensemble Based Methods and Bagging*.

2. This is the best way to choose the number of trees to build on a Bagging ensemble.

1 point

☐ Choose a large number of trees, typically above 100

☐ Prioritize training error metrics over out of bag sample

☐ Tune number of trees as a hyperparameter that needs to be optimized

☒ Choose a number of trees past the point of diminishing returns

✘ Incorrect

Incorrect. Please review the lesson: *Ensemble Based Methods and Bagging*.

3. Which type of Ensemble modeling approach is NOT a special case of model averaging?

1 / 1 point

☐ Random Forest methods

☒ Boosting methods

☐ The Pasting method of Bootstrap aggregation

☐ The Bagging method of Bootstrap aggregation

✔ Correct

Correct! You can find more information in the lesson *Overview of Boosting*.

4. What is an ensemble model that needs you to look at out of bag error?

1 / 1 point

☒ Random Forest

☐ Logistic Regression

☐ Out of Bag Regression

☐ Stacking

✔ Correct

Correct! You can find more information in the lesson *Random Forest*.

5. What is the main condition to use stacking as ensemble method?

1 / 1 point

☐ Models need to be nonparametric

☐ Models need to output residual values for each class

☐ Models need to be parametric

☒ Models need to output predicted probabilities

✔ Correct

Correct! You can find more information in the lesson *Stacking*.

6. This tree ensemble method only uses a subset of the features for each tree:

1 / 1 point

☒ Random Forest

☐ Bagging

☐ Adaboost

☐ Stacking

✔ Correct

Correct! This tree ensemble only uses a subset of the features for each tree. For more information, please review the *Random Forest* lesson.

7. Order these tree ensembles in order of most randomness to least randomness:

1 / 1 point

☐ Random Forest, Bagging, Random Trees

☐ Random Forest, Random Trees, Bagging

☐ Bagging, Random Forest, Random Trees

☒ Random Trees, Random Forest, Bagging

✔ Correct

Correct! Random Trees add one more degree of randomness than Random Forests and two more than Bagging. You can find more information in the *Random Forest* lesson.

8. This is an ensemble model that does not use bootstrapped samples to fit the base trees, takes residuals into account, and fits the base trees iteratively:

1 / 1 point

☒ Boosting

☐ Random Trees

☐ Random Forest

☐ Bagging

✔ Correct

Correct! These are all characteristics of boosting algorithms. You can find more information in the *Boosting* lesson.

9. When comparing the two ensemble methods Bagging and Boosting, what is one characteristic of Boosting?

1 / 1 point

☐ Bootstrapped samples

☒ Fits entire data set

☐ Only data points are considered

☐ No weighting used

✔ Correct

Correct. With Boosting you can use the entire data set to train each of the classifiers

10. What is the most frequently discussed loss function in boosting algorithms?

1 point

☐ Gradient Loss Function

☐ 0-1 Loss Function

☐ AdaBoost Loss Function

☒ Gradient Boosting Loss Function

✘ Incorrect

Incorrect. Please review the *Adaboost and Gradient Boosting Overview* video.