


## 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


☐ Prioritize training error metrics over out of bag sample  
☐ Tune number of trees as a hyperparameter that needs to be optimized  
☐ Choose a large number of trees, typically above 100  
☒ 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


☐ The Pasting method of Bootstrap aggregation  
☐ Random Forest methods  
☒ Boosting methods  
☐ 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


☐ Out of Bag Regression  
☐ Stacking  
☐ Logistic Regression.  
☒ Random Forest

 **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 output residual values for each class  
☐ Models need to be nonparametric  
☐ 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


☐ Adaboost  
☒ Random Forest  
☐ Stacking  
☐ Bagging

 **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 Trees, Random Forest, Bagging  
☐ Bagging, Random Forest, Random Trees  
☐ Random Forest, Random Trees, 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  
☐ Bagging  
☐ Random Forest

 **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

☐ Only data points are considered  
☐ No weighting used  
☐ Bootstrapped samples  
☒ Fits entire data set

 **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  
☒ AdaBoost Loss Function  
☐ 0-1 Loss Function  
☐ Gradient Boosting Loss Function

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