✓ **Congratulations! You passed!**

Grade received 100%   **To pass** 80% or higher

Go to next item

1. Fill in the blank: The supervised learning technique boosting builds an ensemble of weak learners _____, then aggregates their predictions.

   ○ randomly

   ○ repeatedly

   ● sequentially

   ○ in parallel

   ⊘ **Correct**
   The supervised learning technique boosting builds an ensemble of weak learners sequentially, then aggregates their predictions.

   1 / 1 point

2. When using a gradient boosting machine (GBM) modeling technique, which term describes a model's ability to predict new values that fall outside of the range of values in the training data?

   ○ Learning rate

   ○ Grid search

   ● Extrapolation

   ○ Cross validation

   ⊘ **Correct**
   When using a gradient boosting machine (GBM) modeling technique, extrapolation describes a model's ability to predict new values that fall outside of the range of values in the training data.

   1 / 1 point

3. When using the hyperparameter min_child_weight, a tree will not split a node if it results in any child node with less weight than what is specified. What happens to the node instead?

   ○ It gets deleted.

   ○ It becomes a root.

   ● It becomes a leaf

   ○ It duplicates itself to become another node.

   ⊘ **Correct**
   When using the hyperparameter min child weight, a tree will not split a node if it results in any child node with less weight than what is specified. Instead, the node becomes a leaf.

   1 / 1 point

✓ **Congratulations! You passed!**

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1. Fill in the blank: The supervised learning technique boosting builds an ensemble of weak learners _____, then aggregates their predictions.

   1 / 1 point