Week 4 Quiz

Quiz, 6 questions

Congratulations! You passed!

Next Item

1 / 1 point

1.
Consider the following split in the appointment data.

Status	Arrived	Cancelled
Age < 65.5	1500	500
Age > 65.5	3500	1500

What is the Gini index for the branch Age<65.5?

- 0.25
- 0.375

Correct
The proportion of the two classes are 0.75 (1500/2000) and 0.25 (500/2000), respectively.

Gini index = 1 - 0.75^2 - 0.25^2 = 0.375

- 0.50
- 0.875

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1 / 1 point

2.
The bagging procedure can reduce the variance of a predictive model. Check all true statements about the bagging method. (Check all that apply.)

- [ ] Helps avoid overfitting of the dataset

Correct

Refer to the following video for a refresher: video 4.

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- [ ] Helps group similar data outliers

Un-selected is correct

- [ ] Has access to multiple training sets

Un-selected is correct

- [ ] Can be applied to tree models

Correct

Refer to the following video for a refresher: video 4.

✔ 1 / 1 point

3.

What do the bagging and random forest methods have in common?

- ◉ Both methods grow multiple numbers of trees

Correct

- ○ Both methods operate on only 2 trees
- ○ Both methods sample the validation set
- ○ Both methods increase the variance of a dataset

✔ 1 / 1 point

4.

What sets the random forest algorithm apart from bagging and boosting algorithms?

- ○ It operates on bootstrap sets
- ◉ It focuses on reducing correlation among models

Correct

It involves multiple tree models

It predicts the average variance of a set

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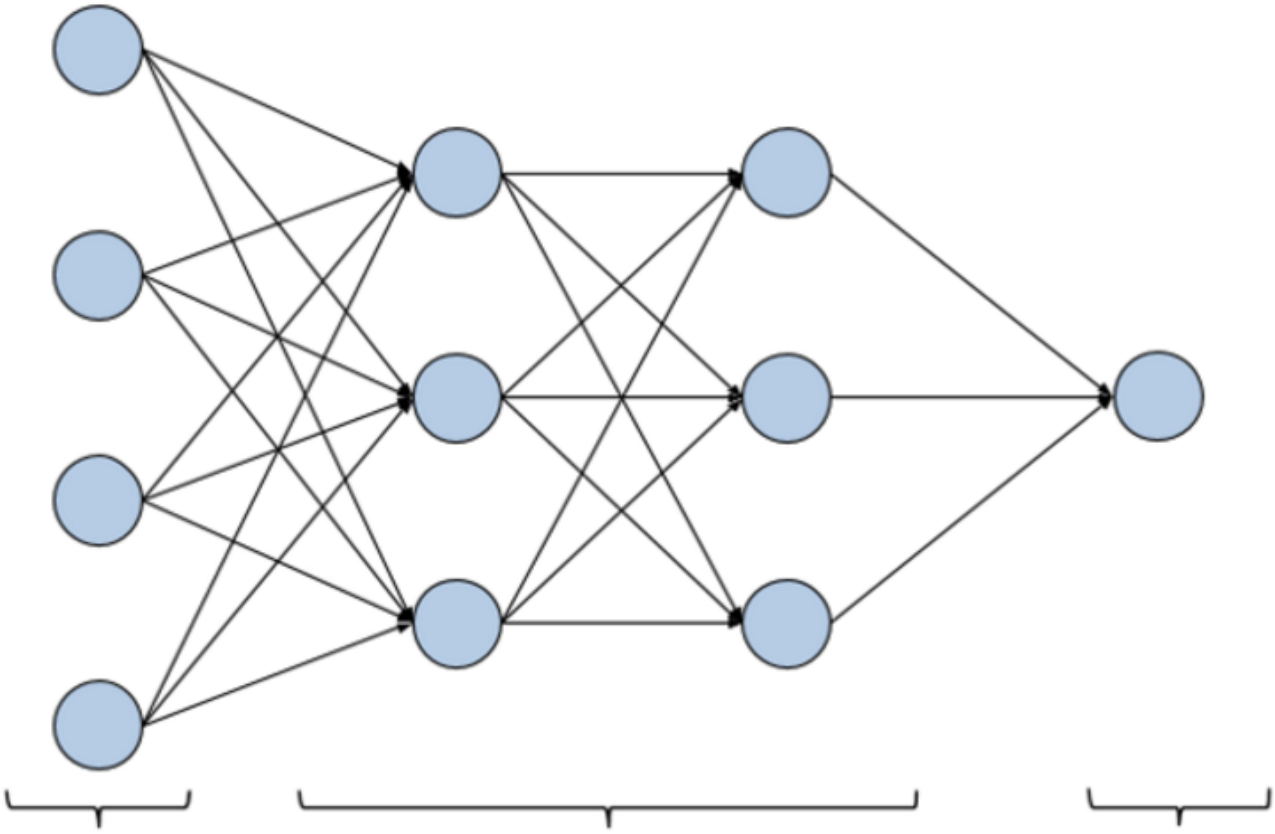
5.

What relationship do the hidden layer nodes have to the output layer nodes based on the diagram?



One to one

One to many

Many to many

Many to one

Correct

Refer to the following video for a refresher: video 5.

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1 / 1 point

6.

True or False: both linear regression and logistic regression can be viewed as a neural network with no hidden layers.

- True

Correct

Refer to the following video for a refresher: video 5.

- False