

Module 4 Knowledge Check

Which patterns are common in time series data? (Select TWO.)

Trends

Seasonal

Correct

Exponential

Trends and seasonal are both patterns you might find in time series data.

Star shape

None of the above

Continue



Number correct: 1 out of 1

Which use cases apply to forecasting? (Select TWO.)

Predicting the inventory that's required for items in a warehouse

Predicting the price of a stock

Correct

Predicting future sales volume

Forecasting use cases involve predicting the future demand of numerical values.

Predicting the outcome of a political election

Determining the best route for delivery

Continue



Number correct: 2 out of 2

Which datasets could be used as a time series dataset? (Select TWO.)

Sales data that contains items, purchase dates, and quantities

Web logs

Correct

Datasets with a timestamp element -- or time that can be inferred -- can be used as time series data.

Chemical reactions

(PII) and a

Member donations

Results

Continue



Number correct: 3 out of 3

You have a dataset of temperature readings from a weather station. Temperature readings are logged every 5 minutes. You notice that there are several missing values each day. Which approach could you take? (Select TWO.)

Replace them with the mean value

Correct

Forward fill the missing values

In this example, using forward fill or backward fill are both methods for filling in the missing data.

Backward fill the missing values

Use the last known value to fill the missing values

Continue

Remove the records that have the missing data



Number correct: 4 out of 4

Which scenarios are examples of appropriate downsampling?
(Select TWO.)

- Using mean to determine an hourly value
- Using mean to determine a daily total
- Using sum to determine an hourly total
- Using sum to determine a daily value

Correct

Using mean on minute-by-minute data to determine an hourly value is suitable for temperature data. Using sum to determine the daily total is the best way to downsample.

Continue



Number correct: 5 out of 5

What are examples of seasonality that you might observe in time series data? (Select TWO.)

- Quarterly, yearly
- Spring, summer, fall, winter
- Every two years
- One time sales events
- Hourly



Number correct: 5 out of 5

Amazon Forecast generates predictions for P10, P50, and P90. If the forecast predicts shoe sales, what do the P10, P50, and P90 tell you?

- P10 indicates at what percentage of the time the true value will be less than the predicted value.
- P50 indicates at what percentage of the time the true value will be less than the predicted value.
- P90 indicates at what percentage of the time the true value will be less than the predicted value.
- All of the above

Correct

P values indicate at what percentage of the time the true value will be less than the predicted value.

Continue



Number correct: 7 out of 7

Which datasets are required for generating a retail forecast with Amazon Forecast?

- Item details
- Item statistics
- Item price history
- Time series data

Correct

A time series dataset is the only dataset that's required to generate a forecast. The others are optional.

Continue



Number correct: 8 out of 8

You are going to use a dataset to generate a forecast. Which steps would you take to use the data that's available to produce the best model? (Select THREE.)

- Use the entire dataset for training and testing.
- Use part of the dataset for training and part for testing.
- Use the entire dataset for training and testing.
- Use the first half of the dataset for training and the second half for testing.
- All of the above.

Correct

Splitting the data by time, using a backtest window, and comparing the tested dataset predictions with actual values are all valid ways to produce a model.

Continue



Number correct: 9 out of 9