Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 75%. We keep your highest score.

Next item

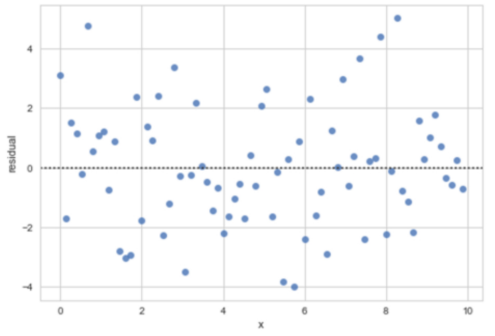
1. Consider the following lines of code. What is the name of the column that contains the target values? **1 / 1 point**

```
from sklearn.linear_model import LinearRegression lm=LinearRegression()

X = df[['highway-mpg']]

Y = df['price']

lm.fit(X, Y)

Yhat=lm.predict(X)
```

- ○ Yhat
- ◉ 'price'
- ○ fit
- ○ 'highway-mpg'

Correct
Correct! This is the column name of the target values.

2. Consider the following **Residual Plot**. Which of the following is a correct interpretation? **1 / 1 point**



- ○ Since the values are distributed uniformly around a straight line, the linear model is a good fit.
- ◉ Since the values are randomly distributed on the graph, it indicates the linear model is not a good fit.
- ○ Since the number of values above the line is the same as the number below the line, it indicates the linear model is not a good fit.

Correct
Correct! Random distribution of the residuals around the line indicates the linear model is not a good fit.

3. Which statement is most accurate about a higher-order polynomial model than a linear one? **1 / 1 point**

- ○ The linear model will usually appear to fit the data better.
- ○ When you compare their R^2 values, the smaller value indicates the better fit.
- ◉ You cannot compare their R^2 values to decide which is a better fit.
- ○ When you compare their R^2 values, the larger value indicates the better fit.

Correct
Correct! Higher-order polynomials usually fit the data better because they have more curvature, so the R^2 value does not provide this information.

4. Consider the following lines of code. What value does the variable **out** contain? **1 / 1 point**

```
lm = LinearRegression()

X = df[['highway-mpg']]

Y = df['price']
```

```
lm.fit(X, Y)

out=lm.score(X,Y)
```

- ○ A multiple linear regression
- ◉ The Coefficient of Determination
- ○ Mean Squared Error with respect to X
- ○ Mean Square Error with respect to y.

Correct
Correct! The score() method will calculate the coefficient of determination of a linear regression model.