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Time taken	37 mins 59 secs
Grade	54.00 out of 68.00 (79%)

Question 1

Correct
Mark 8.00 out of 8.00

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform correlation in your data? Note that verbs such as Go/Click has been explicitly removed and are implied.

1.

2.

3.

4.

✓ tab

✓ group

✓

✓

Data

Analysis

Data Analysis

Correlation

Your answer is correct.

The correct answer is:

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform correlation in your data? Note that verbs such as Go/Click has been explicitly removed and are implied.

1. [Data] tab

2. [Analysis] group

3. [Data Analysis]

4. [Correlation]

Data

Correlation

Exponential Smoothing

Analysis

Question 2

Partially correct
Mark 4.00 out of 8.00

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform correlation in your data? Note that verbs such as Go/Click has been explicitly removed and are implied.

1.

2.

3.

4.

✓ tab

✗ group

✓

✗

Data

Data Analysis

Data Analysis

Correlation

Your answer is partially correct.

You have correctly selected 2.

The correct answer is:

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform correlation in your data? Note that verbs such as Go/Click has been explicitly removed and are implied.

1. [Data] tab

2. [Analysis] group

3. [Data Analysis]

4. [Regression]

Regression

Covariance

Data

Correlation

Analysis

Data Analysis

Question 3

Correct

Mark 8.00 out of 8.00

Supposing you have just opened Excel however, Analysis Toolpak was not enabled. What are the sequence of steps that you need to do in order to enable it. The verbs go/click are implied in the steps.

- 1. ✓
- 2. ✓
- 3. ✓
- 4. ✓
- 5. Analysis Toolpak
- 6. OK

AccountOptionsGo...Trust CenterFileAdd-ins

Your answer is correct.

The correct answer is:

Supposing you have just opened Excel however, Analysis Toolpak was not enabled. What are the sequence of steps that you need to do in order to enable it. The verbs go/click are implied in the steps.

- 1. [File]
- 2. [Options]
- 3. [Add-ins]
- 4. [Go...]
- 5. Analysis Toolpak
- 6. OK

Question 4

Correct

Mark 4.00 out of 4.00

In the general formula of the line: $y = mx + b$, which of these variables are independent, dependent, slope and intercept? Drag and drop the variables to their corresponding type

- Independent: ✓
- Dependent: ✓
- Slope: ✓
- Intercept: ✓

=+beta

Your answer is correct.

The correct answer is:

In the general formula of the line: $y = mx + b$, which of these variables are independent, dependent, slope and intercept? Drag and drop the variables to their corresponding type

- Independent: [x]
- Dependent: [y]
- Slope: [m]
- Intercept: [b]

Question 5

Correct

Mark 3.00 out of 3.00

Which of the following linear regression model should you adopt based on the summary output for regression of Excel?

Select one:

☐ a.

1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.781644427							
5	R Square	0.61096801							
6	Adjusted R Square	0.608686298							
7	Standard Error	10.45024962							
8	Observations	1030							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	6	175453.5338	29242.26	267.7673008	9.3284E-206			
13	Residual	1023	111719.4946	109.2077					
14	Total	1029	287173.0285						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	36.95530188	17.82991024	2.072658	0.038454123	1.967925409	71.94267834	1.967925409	71.94267834
18	Cement	0.109944887	0.004020951	27.34301	5.2033E-124	0.102054634	0.117835141	0.102054634	0.117835141
19	Blast Furnace Slag	0.092282466	0.004582069	20.13991	3.02922E-76	0.083291138	0.101273794	0.083291138	0.101273794
20	Fly Ash	0.079506045	0.006790227	11.70889	8.31472E-30	0.06618168	0.092830411	0.06618168	0.092830411
21	Water	-0.278176779	0.190813409	-1.45785	0.145189597	-0.652607189	0.09625363	-0.652607189	0.09625363
22	Water^2	6.37985E-05	0.000522582	0.122083	0.902857025	-0.000961656	0.001089253	-0.000961656	0.001089253
23	Age	0.113827819	0.005639783	20.18301	1.62401E-76	0.102760953	0.124894684	0.102760953	0.124894684
24									

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.781640801							
5	R Square	0.610962342							
6	Adjusted R Square	0.609062745							
7	Standard Error	10.4452218							
8	Observations	1030							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	5	175451.9062	35090.38	321.6272	5E-207			
13	Residual	1024	111721.1223	109.1027					
14	Total	1029	287173.0285						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	34.82578843	3.691909573	9.433001	2.58E-20	27.58122	42.07036	27.58122	42.07036
18	Cement	0.110045387	0.003933888	27.9737	2.2E-128	0.102326	0.117765	0.102326	0.117765
19	Blast Furnace Slag	0.09235939	0.004536356	20.35982	1.22E-77	0.083458	0.101261	0.083458	0.101261
20	Fly Ash	0.079615802	0.00672721	11.83489	2.22E-30	0.066415	0.092816	0.066415	0.092816
21	Water	-0.254971412	0.016726779	-15.2433	1.94E-47	-0.28779	-0.22215	-0.28779	-0.22215
22	Age	0.114015766	0.005422987	21.02453	7.32E-82	0.103374	0.124657	0.103374	0.124657
23									

☒ b.



Your answer is correct.

Question 6

Correct

Mark 4.00 out of 4.00

Linear

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.781640801							
5	R Square	0.610962342							
6	Adjusted R Square	0.609062745							
7	Standard Error	10.4452218							
8	Observations	1030							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	5	175451.9062	35090.38	321.6272	5E-207			
13	Residual	1024	111721.1223	109.1027					
14	Total	1029	287173.0285						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	34.82578843	3.691909573	9.433001	2.58E-20	27.58122	42.07036	27.58122	42.07036
18	Cement	0.110045387	0.003933888	27.9737	2.2E-128	0.102326	0.117765	0.102326	0.117765
19	Blast Furnace Slag	0.09235939	0.004536356	20.35982	1.22E-77	0.083458	0.101261	0.083458	0.101261
20	Fly Ash	0.079615802	0.00672721	11.83489	2.22E-30	0.066415	0.092816	0.066415	0.092816
21	Water	-0.254971412	0.016726779	-15.2433	1.94E-47	-0.28779	-0.22215	-0.28779	-0.22215
22	Age	0.114015766	0.005422987	21.02453	7.32E-82	0.103374	0.124657	0.103374	0.124657
23									

Curvilinear

1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.781644427							
5	R Square	0.61096801							
6	Adjusted R Square	0.608686298							
7	Standard Error	10.45024962							
8	Observations	1030							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	6	175453.5338	29242.26	267.7673008	9.3284E-206			
13	Residual	1023	111719.4946	109.2077					
14	Total	1029	287173.0285						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	36.95530188	17.82991024	2.072658	0.038454123	1.967925409	71.94267834	1.967925409	71.94267834
18	Cement	0.109944887	0.004020951	27.34301	5.2033E-124	0.102054634	0.117835141	0.102054634	0.117835141
19	Blast Furnace Slag	0.092282466	0.004582069	20.13991	3.02922E-76	0.083291138	0.101273794	0.083291138	0.101273794
20	Fly Ash	0.079506045	0.006790227	11.70889	8.31472E-30	0.06618168	0.092830411	0.06618168	0.092830411
21	Water	-0.278176779	0.190813409	-1.45785	0.145189597	-0.652607189	0.09625363	-0.652607189	0.09625363
22	Water^2	6.37985E-05	0.000522582	0.122083	0.902857025	-0.000961656	0.001089253	-0.000961656	0.001089253
23	Age	0.113827819	0.005639783	20.18301	1.62401E-76	0.102760953	0.124894684	0.102760953	0.124894684
24									

When facing a situation on deciding which model to choose, which factors should be considered? Check all that apply.

Select one or more:

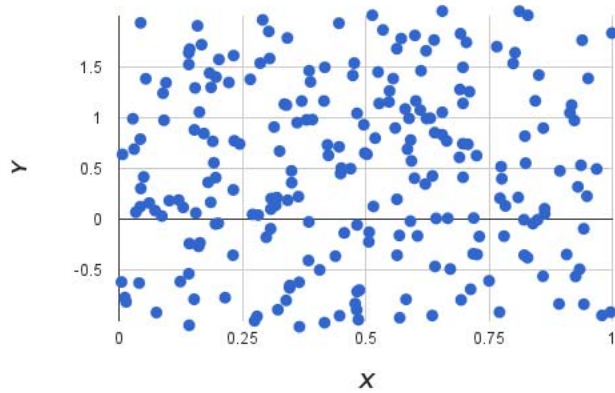
- ☐ Values of the Coefficient
- ☒ Values of the P-value ✓
- ☐ Presence of Higher Degree (Curvilinearity)
- ☒ Value of the Adjusted R Squared ✓

Your answer is correct.

The correct answer is: Value of the Adjusted R Squared, Values of the P-value

Question 7

Correct

Mark 2.00 out of
2.00

Which of the following describes the data having the scatter plot pictured above? Check all that applies.

Select one or more:

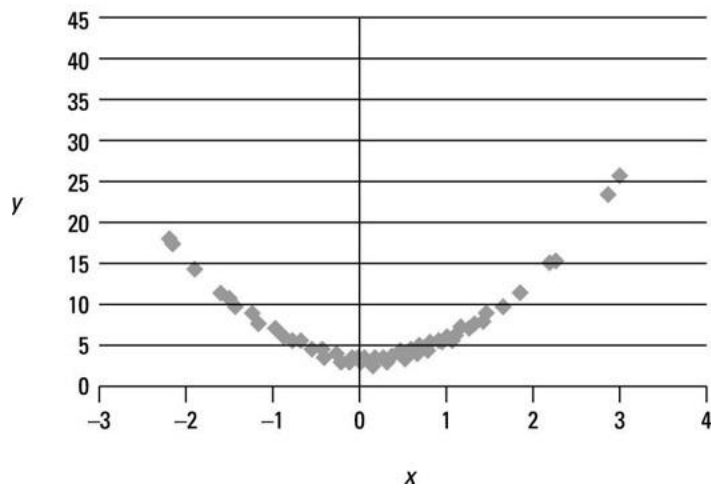
- ☐ Negative
- ☒ No linear relationship ❌
- ☐ Positive
- ☒ Non-linear ❌
- ☐ Linear
- ☒ No relationship ✔️

Your answer is correct.

The correct answer is: No relationship

Question 8

Partially correct

Mark 1.00 out of
2.00

Select one or more:

- ☐ No linear relationship
- ☐ Negative
- ☐ No relationship
- ☐ Linear
- ☒ Positive ❌
- ☒ Non-linear relationship ✔️

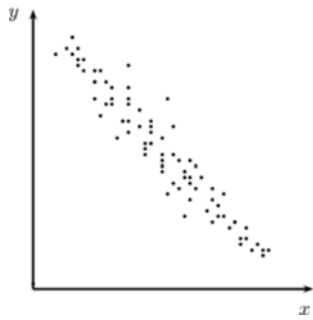
Your answer is partially correct.

You have correctly selected 1.

The correct answer is: No linear relationship, Non-linear relationship

Question 9

Correct

Mark 2.00 out of
2.00

Which of the following describes the data having the scatter plot pictured above? Check all that applies.

Select one or more:

- ☒ Linear ✓
- ☐ Weak
- ☐ No linear relationship
- ☒ Negative ✓
- ☐ Positive
- ☐ Non-linear
- ☐ No relationship

Your answer is correct.

The correct answer is: Linear, Negative

Question 10

Correct

Mark 6.00 out of 6.00

Below is the summary output for the regression from Excel for Miles per Gallon based on the factors: Cylinders, Displacement, Horsepower, Weight, Acceleration. Which of the factors (including the Intercept) are **significant** based on the summary output? Check all that applies.

Hint: When an alpha is not define, use the traditional alpha.

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.841244693							
5	R Square	0.707692633							
6	Adjusted R Square	0.703906268							
7	Standard Error	4.247055449							
8	Observations	392							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	5	16856.5262	3371.305	186.9056	9.8205E-101			
13	Residual	386	6962.467273	18.03748					
14	Total	391	23818.99347						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	46.26430785	2.669406286	17.33131	3.48E-50	41.0159114	51.5127043	41.0159114	51.5127043
18	Cylinders	-0.397928359	0.410544385	-0.96927	0.333017	-1.205111478	0.40925476	-1.205111478	0.40925476
19	Displacement	-8.31301E-05	0.009071782	-0.00916	0.992693	-0.017919421	0.017753161	-0.017919421	0.017753161
20	Horsepower	-0.04525708	0.016661879	-2.7162	0.0069	-0.07801648	-0.01249768	-0.07801648	-0.01249768
21	Weight	-0.005186917	0.000816646	-6.35149	6E-10	-0.006792548	-0.003581286	-0.006792548	-0.003581286
22	Acceleration	-0.029104714	0.125761231	-0.23143	0.817105	-0.276367486	0.218158058	-0.276367486	0.218158058

Select one or more:

- ☒ Intercept ✓
- ☐ Cylinders
- ☒ Horsepower ✓
- ☐ Displacement
- ☒ Weight ✓
- ☐ Acceleration

Data

Analysis

Data Analysis

Data Analysis

Damping Factor

Data

Analysis

Data Analysis

Exponential Smoothin

Your answer is correct.

The correct answer is: Intercept, Horsepower, Weight

Interval

Question 11

Correct

Mark 1.00 out of 1.00

Which of the following measures the linear association between to variables and depends on the units of measure of the variables?

Select one:

- ☐ a. Associativity
- ☒ b. Covariance ✓
- ☐ c. Precedence
- ☐ d. Correlation

Your answer is correct.

The correct answer is: Covariance

Question 12

Correct

Mark 1.00 out of 1.00

Which of the following measures the linear association between to variables and does not depend on the units of measure of the variables?

Select one:

- ☐ a. Precedence
- ☐ b. Covariance
- ☒ c. Correlation ✓
- ☐ d. Associativity

Your answer is correct.

The correct answer is: Correlation

Question 13

Correct

Mark 1.00 out of 1.00

Which measure of forecast accuracy is used when you get the average of all the absolute value of the error?

Select one:

- ☒ a. Mean Absolute Deviation ✓
- ☐ b. Mean Absolute Percent Error
- ☐ c. Mean Squared Error
- ☐ d. Mean of Errors

Your answer is correct.

The correct answer is: Mean Absolute Deviation

Question 14

Incorrect

Mark 0.00 out of 5.00

Below is the summary output for the regression using Excel. It tries to estimate the ERP: Relative Performance of a CPU based on the factors: MYCT: machine cycle time in nanoseconds, MMIN: minimum main memory in kilobytes, MMAX: maximum main memory in kilobytes, CACH: cache memory in kilobytes. What is the regression equation for this data? **Use the symbols: ERP, MYCT, MMIN, MMAX, CACH.**

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	Regression Statistics								
4	Multiple R	0.9420							
5	R Square	0.8873							
6	Adjusted R Square	0.8851							
7	Standard Error	52.4497							
8	Observations	209							
9									
10	ANOVA								
11		df	SS	MS	F	Significance F			
12	Regression	4	4420351.116	1105088	401.7075	1.73866E-95			
13	Residual	204	561199.104	2750.976					
14	Total	208	4981550.22						
15									
16		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
17	Intercept	-61.2174	6.9675	-8.7861	6.39E-16	-74.9549	-47.4798	-74.9549	-47.4798
18	MYCT: machine cycle time in nanoseconds (integer)	0.0620	0.0153	4.0577	7.06E-05	0.0319	0.0922	0.0319	0.0922
19	MMIN: minimum main memory in kilobytes (integer)	0.0109	0.0015	7.3484	4.74E-12	0.0080	0.0138	0.0080	0.0138
20	MMAX: maximum main memory in kilobytes (integer)	0.0083	0.0005	16.6508	7E-40	0.0073	0.0093	0.0073	0.0093
21	CACH: cache memory in kilobytes (integer)	0.7583	0.1102	6.8840	7.03E-11	0.5411	0.9755	0.5411	0.9755
22									

Answer: ✗

The correct answer is: ERP = -61.2174 + 0.0620 MYCT + 0.0109 MMIN + 0.0083 MMAX + 0.7583 CACH

Question 15

Correct

Mark 1.00 out of 1.00

Which measure of forecast accuracy where the error is relative to the actual data?

Select one:

- ☐ a. MAD
- ☒ b. MAPE ✓
- ☐ c. MSE
- ☐ d. RMSE

Your answer is correct.

The correct answer is: MAPE

Question 16

Correct

Mark 1.00 out of 1.00

The alpha for both in regression and forecasting is something that the data analyst will set prior to generating the model. Which of the following is another term used for alpha in exponential forecasting?

Select one:

- ☒ a. Smoothing value ✓
- ☐ b. Laplace additive
- ☐ c. Laplace smoothing (different from Laplacian smoothing)
- ☐ d. Laplace value

Your answer is correct.

The correct answer is: Smoothing value

Question 17

Partially correct

Mark 6.00 out of 10.00

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform Exponential Smoothing in your data? Note that verbs such as Go/Click/Type has been explicitly removed and are implied.

1. ✓ tab
2. ✓ group
3. ✓
4. ✗
5. Input data in Input Range field.
6. ✗ field
7. OK

Your answer is partially correct.

You have correctly selected 3.

The correct answer is:

Supposing you have just opened Excel and the Analysis Toolpak has been enabled. What are the series of steps that you need to do in order to perform Exponential Smoothing in your data? Note that verbs such as Go/Click/Type has been explicitly removed and are implied.

1. [Data] tab
2. [Analysis] group
3. [Data Analysis]
4. [Exponential Smoothing]
5. Input data in Input Range field.
6. [Moving Average] field
7. OK

Question 18

Correct

Mark 1.00 out of 1.00

In the moving average technique in forecasting, what term is used to describe when the analyst choose an average of **one** data?

Select one:

- ☐ a. 1-period moving average
- ☒ b. Naive ✓
- ☐ c. Average-by-One technique
- ☐ d. There is no such thing as average of one.

Your answer is correct.

The correct answer is: Naive