

## Modeling using SAS Visual Statistics: Practice Questions

You have a regression model effect that represents the total amount of sales. In addition to that, you would like to create a model effect that represents the average amount of sales. Which option should you use?

- A. Create an aggregated measure using the Avg aggregation on total amount of sales.
- B. Create a calculated item that divides total amount of sales by the total amount of items sold.
- C. Create a calculated item by duplicating the original model effect and changing its default aggregation to Average.
- D. Create an aggregated measure using the Sum aggregation of total amount of sales divided by the Sum aggregation of total amount of items sold.

correct\_answer = "C"

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Your company has a dataset that represents global sales. You are a part of a team of analysts that each have responsibility for a certain region of the world. You decide to create a data source filter to suppress every region but yours. What effect will this have on any new explorations that your teammates create?

- A. It will delete all observations that do not match your region.
- B. It will have no effect on any observations in the dataset.
- C. It will suppress all observations that do not match your region.
- D. It will suppress all observations that do not match their corresponding region.

correct\_answer = "B"

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## Modeling using SAS Visual Statistics: Practice Questions

Which equation does **NOT** represent a linear model?

Note:  $b_i$  are parameters and  $X_i$  are variables.

- A.  $y = b_0 + b_1X_1 + b_2X_2$
- B.  $y = b_0 + b_1X_1 + b_2X_2 + b_3(X_1X_2)$
- C.  $y = b_0 + b_1X_1 + (b_2/b_1)X_2$
- D.  $y = b_0 + b_1X_1 + b_2X_1^3$

correct\_answer = "C"

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Which statement is **TRUE** regarding a generalized additive model (GAM) in SAS Visual Analytics?

- A. GAM assumes a strict linear relationship between the predictors and the response function.
- B. The roughness penalty controls the balance between goodness of fit and the roughness of the spline curve.
- C. Specification of a spline effect is optional.
- D. A larger maximum degrees of freedom for the univariate spline term enforces a less complex fit.

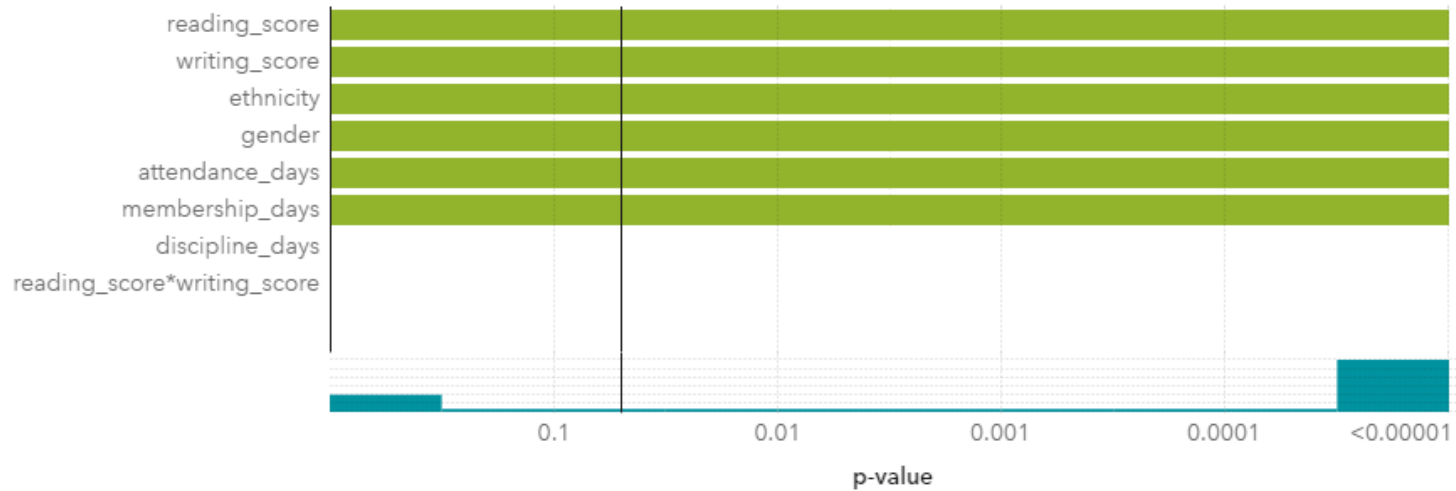
Correct answer = "B"

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## Modeling using SAS Visual Statistics: Practice Questions

Refer to the exhibit:

### Fit Summary



Description	Value
Number of Model Effects	9
Number of Classification Effects	2
Number of Columns in X	14
Rank of Cross-product Matrix	10
Number of Observations Read	40,087
Number of Observations Used	8,826

Which option was **NOT** specified in creating the linear regression model using SAS Visual Statistics?

## Modeling using SAS Visual Statistics: Practice Questions

- A. interaction term
- B. group-by variable
- C. variable selection
- D. continuous effects

correct\_answer = "B"

Refer to the exhibit:

Name	Minimum	Maximum	Average	Sum
Promotion Count Card All Months	2.00	56.00	19.01	2,025,133.00
Status Category Star All Months	0.00	1.00	0.54	57,596.00
Target Gift Amount	1.00	200.00	15.62	832,355.70
Target Gift Amount with Zero	0.00	200.00	7.81	832,355.70
Target Gift Flag	0.00	1.00	0.50	53,273.00

More information

Standard Deviation:	12.44
Standard Error:	0.05
Variance:	154.85
Distinct Count:	70
Number Missing:	53,273
Total Observations:	53,273
Skewness:	5.1680
Kurtosis:	52.8002
Coefficient of Variation:	79.6447
Uncorrected Sum of Squares:	21,254,307.28
Corrected Sum of Squares:	8,249,295.14
T-statistic (for Average=0):	289.7987
P-value (for T-statistic):	<0.0001



## Modeling using SAS Visual Statistics: Practice Questions

Which is the modeling approach that should be used when fitting the **Target Gift Amount** variable?

- A. Linear regression model with Interaction effects.
- B. Generalized linear model with a Poisson distribution and Identity link.
- C. Generalized linear model with a Normal distribution and Log Link.
- D. Logistic regression model.

correct\_answer = "C"

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You perform a logistic regression on a multinomial response variable in SAS Visual Statistics that has 3 levels: Small, Medium, Large. "Large" is specified as the event. Which statement is true?

- A. The other levels are grouped into one non-event.
- B. An ordinal logistic regression is performed.
- C. A multinomial logistic regression is performed.
- D. The other levels are offset to account for exposure.

correct\_answer = "A"

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## Modeling using SAS Visual Statistics: Practice Questions

Refer to the exhibit from a linear regression model in SAS Visual Statistics.

Parameter	Estimate	Standard Error	t Value	Pr >  t
Intercept	102.9345	12.40326	8.298987	<0.00001
Age	-0.22697	0.099837	-2.27343	0.03224
MaxPulse	0.303217	0.136495	2.221449	0.03601
RestPulse	-0.02153	0.066054	-0.326	0.74725
RunPulse	-0.36963	0.119853	-3.08401	0.00508
RunTime	-2.62865	0.384562	-6.83544	<0.00001
Weight	-0.07418	0.054593	-1.35873	0.18687

Based on the table above and assuming a significance level of 0.05, what can be concluded about the linear regression model?

- A. The Intercept is an important predictor of the response.
- B. RestPulse is a significant predictor of the response.
- C. For one one-unit increase in RunTime, there is an expected decrease in the response of 2.6287.
- D. For a .03696 unit decrease in RunPulse, there is an expected one-unit increase in the response.

correct\_answer = "C"

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You would like to compare multiple models that you've built in SAS Visual Statistics. Which parameters must be the same for all models being compared?

(Choose 3)

- A. Data Source

## Modeling using SAS Visual Statistics: Practice Questions

- B. Assessment Bins
- C. Model Type
- D. Event Level
- E. Response Variable
- F. Link Function

correct\_answer = "A,D,E"

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Which model does **NOT** produce score code?

- A. Decision Tree using interactive mode
- B. Regression using interaction effects
- C. Regression using the group by option
- D. Decision Tree using the rapid growth option

correct\_answer = "A"

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# Modeling using SAS Visual Statistics: Practice Questions

In the below nonparametric logistic regression results display, where would you click to get a plot of significant continuous effects?





# Modeling using SAS Visual Statistics: Practice Questions

Correct answer – *click in red box below*

