Congratulations! You passed!

TO PASS 80% or higher

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GRADE
90%

ANOVA and Regression

LATEST SUBMISSION GRADE

90%

1. You can examine Levene's test for homogeneity to more formally test which of the following assumptions? **1 / 1 point**

✓ **Correct**

2. Given the following output, is there sufficient evidence to reject the assumption of equal variances? **1 / 1 point**

Levene's Test for Homogeneity of Weight Variance					
ANOVA of Squared Deviations from Group Means					
Source	DF	Sum of Squares	Mean Squares	F Value	Pr > F
Brand	1	9.237E-7	9.237E-7	1.12	0.2942
Error	78	0.000065	8.283R-7		

✓ **Correct**

3. **1 / 1 point**

Given the following SAS output, is there sufficient evidence to reject the hypothesis of equal means?

Source	DF	Sum of Squares	Mean Squares	F Value	Pr > F
Brand	1	0.03033816	0.03033816	51.02	<.001
Error	79	0.04638442	0.00059467		
Corrected Total	80	0.07672257			

✓ **Correct**

4. Dunnett's method compares all possible pairs of means. **1 / 1 point**

✓ **Correct**

5. Which of the following phrases describes the model sums of squares, or SSM, in one-way ANOVA? **0 / 1 point**

! **Incorrect**

6. Based on the following correlation matrix, what type of relationship do **Performance** and **RunTime** have? **1 / 1 point**

Pearson Correlation Coefficients, N = 31 Prob > |r| under H0: Rho=0			
	Performance	RunTime	Age
Performance	1.00000	-0.82049	-0.71257
		<.0001	<.0001
Error	-0.82049	1.00000	0.19523
	<.0001		0.2926
Corrected Total	-0.71257	0.19523	1.00000
	<.0001	0.2926	

Correct

7. In the simple linear regression model, what does β1 represent? **1 / 1 point**

$Y = \beta 0 + \beta 1X + \varepsilon$

Correct

8. Which of the following statements describes a positive linear relationship between two variables? **1 / 1 point**

1. The more I eat, the less I want to exercise.
2. The more salty snacks I eat, the more water I want to drink.
3. No matter how much I exercise, I still weigh the same.

Correct

9. What output does the following program produce? **1 / 1 point**

```
1  proc corr data=stat1.bodyfat2 nosimple
2      plots(only)=scatter(nvar=all);
3      var Age Weight Height;
4  run;
```

Correct

10. **1 / 1 point**

Given the following PROC REG output and assuming a significance level of 0.05, which of the following statements is true?

Analysis of Variance					
Source	DF	Sum of Squares	Mean Squares	F Value	Pr > F
Model	1	119.72668	119.72668	2.00	0.1585
Error	250	14959	59.83716		
Corrected Total	251	15079			

Root MSE	7.73545	R-Square	0.0079
Dependent Mean	18.93849	Adj R-Sq	0.0040
Coeff Var	40.84511		

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >|t|
Intercept	1	32.16542	9.36350	3.44	0.0007
Height	1	-0.18856	0.13330	-1.41	0.1585

✓ **Correct**