

60080079 Introduction to Statistical Methods
Semester 2 2023-2024
Homework Assignment 9

1. Write your answer as a two-digit number: **13**

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	14.458	3.779		3.826	.000
Math score	.695	.079	.602	8.822	.000

a. Dependent Variable: Science score

2. Write your answer as a two-digit number: **41**

3. Write your answer as a single-digit number: **4**

$$\hat{\mu}_y = b_0 + b_1x = 14.458 + 0.695 \cdot 48 = 47.833$$

MATH	SCIENCE	PRE_1	SEP_1
48.00	63.40	47.83299	.64680

4. Write your answer as a single-digit number: **2**

5. Write your answer as a single-digit number: **3**

6. Write your answer as a single-digit number: **3**

7. Write your answer as a single-digit number: **3**

ε_i are identically, independently, normally distributed with mean zero and variance σ^2 .

8. Write your answer as a two-digit number: **32**

Model	Unstandardized Coefficients		99.0% Confidence Interval for B	
	B	Std. Error	Lower Bound	Upper Bound
1 (Constant)	14.458	3.779	4.588	24.329
Math score	.695	.079	.489	.901

Linear Regression: Statistics

Regression Coefficients

☒ Estimates

☒ Confidence intervals

Level(%): 99

☐ Covariance matrix

☒ Model fit

☐ R squared change

☐ Descriptives

☐ Part and partial correlations

☐ Collinearity diagnostics

9. Write your answer as a two-digit number: 13

MATH	SCIENCE	PRE_1	SEP_1	LMCI_1	UMCI_1	LICI_1	UICI_1
48.00	49.80	47.83299	.64680	46.76186	48.90412	35.21306	60.45293

Linear Regression: Save

Predicted Values

☒ Unstandardized

☐ Standardized

☐ Adjusted

☒ S.E. of mean predictions

Residuals

☐ Unstandardized

☐ Standardized

☐ Studentized

☐ Deleted

☐ Studentized deleted

Distances

☐ Mahalanobis

☐ Cook's

☐ Leverage values

Influence Statistics

☐ DfBeta(s)

☐ Standardized DfBeta(s)

☐ DfFit

☐ Standardized DfFit

☐ Covariance ratio

Prediction Intervals

☒ Mean ☒ Individual

Confidence Interval: 90 %

10. Write your answer as a two-digit number: 24

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.458	3.779		3.826	.000
	Math score	.695	.079	.602	8.822	.000

a. Dependent Variable: Science score

