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Assignment Regression due 05/30/2019 at 08:00pm EEST

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1. **(0 points)** METUNCC/Statistics/Regression_1.pg

Complete the regression and ANOVA tables below and then answer questions about their values. All answers must be **numerical** and accurate to 3 significant digits.

Predictor	Coeff.	Std.Error	t	p
Const	2.8	0.3948	7.0919	0
x	1.5993	0.7139	2.2403	0.0321

Source	df	SS	MS	F	p
Regression	___	___	_____	___	___
Residual	32	169.6	_____		
Total	___	196.2	_____		

	Goodness of Fit
R^2	_____
Std.Error	2.3022

The regression model is $Y = \beta_0 + \beta_1 x + \varepsilon$.

$\hat{\beta}_0 =$ ___ $\sigma_{\hat{\beta}_0} =$ ___

$\hat{\beta}_1 =$ ___ $\sigma_{\hat{\beta}_1} =$ ___

$\text{Var}[\varepsilon] =$ ___ $\sigma_\varepsilon =$ ___

The number of degrees of freedom for β_0 and β_1 are

$\text{df}(\beta_0) =$ _____ $\text{df}(\beta_1) =$ _____

The 95% confidence intervals for β_0 and β_1 are

$\beta_0 = \hat{\beta}_0 \pm$ _____ $\beta_1 = \hat{\beta}_1 \pm$ _____

What is the p-value for $H_0: \beta_1 = 0$?

___

You may use the embedded R window below to perform computations.

Embedded R window.

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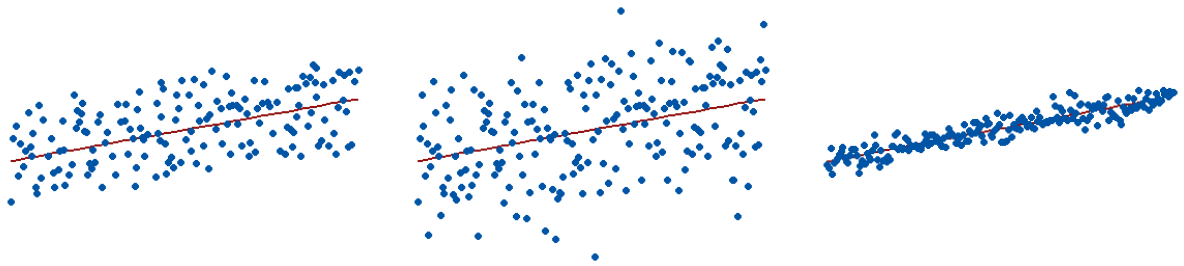
2. **(0 points)** METUNCC/Statistics/rsq-match.pg

Match R^2 value with its graph (assuming all graphs have the same scale). Click on a graph to make it larger.

[?] 1. $R^2 = 0.2$

[?] 2. $R^2 = 0.5$

[?] 3. $R^2 = 0.8$



A **B** **C**

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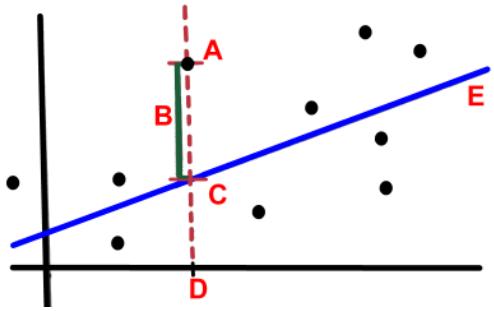
3. **(0 points)** `METUNCC/Statistics/regression-label.pg`

Give the correct labels for the indicated parts of a regression graph.



? 1. $\hat{y}_i$

? 2. ε_i

? 3. y_i

? 4. $\hat{y}(x)$

? 5. x_i