

STAT 110A
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Name: _____

Quiz 9

Vocabulary and spelling scores. An English teacher believes that vocabulary and spelling scores are related. To support this claim, the following data have been collected:

Vocabulary, x	Spelling, y
72	75
89	88
60	72
79	77
64	69
55	70
69	73
65	80
75	81

(a) Fill in the ANOVA table.

$$\text{spell} = 42.3 + 0.484 \text{ vocab}$$

Predictor	Coef	Stdev	t-ratio	p
Constant	-----	-----	4.75	0.000
vocab	-----	-----	3.83	0.006

$s =$ _____ $R\text{-sq} =$ _____ $R\text{-sq}(\text{adj}) = 63.1\%$

ANOVA TABLE:

SOURCE	DF	SS	MS	F	p
Regression	---	-----	-----	14.68	0.006
Error	---	95.84	-----		
Total	---	296.89			

For (b) and (c) you need "Stdevs" from the table in (a).

(b) Test the hypothesis $H_0 : \hat{\beta}_0 = 50$ against the twosided alternative. Take $\alpha = 0.05$.

(c) Find 95% CI for β_1 .