

# Updates to ACTEX Study Manual for SOA Exam PA

(December 2019 Edition)

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December 4, 2019

Please feel free to bring any potential errors in the manual, typographical or otherwise, to my attention (email: ambrose-lo@uiowa.edu) so that they can be fixed in a future edition. I would deeply appreciate it!

Page(s)	Corrections/Updates
21	The first two lines right after CHUNK 9 should read “Note that <b>A</b> is a numeric matrix with 8 elements and 2 <u>columns</u> . The number of <u>rows</u> is therefore $8/2 = 4\dots$ ”.
68	At the bottom of the page, there should be an additional ending parenthesis after the <code>aes</code> mapping.
100	In the statement of part (c), “ <code>caret</code> ” should be “ <code>carat</code> .”
105-106	In the solution of part (e), the references to parts (d) and (e) should be to parts (c) and (d), respectively.
115	In the displayed equation in the middle of the page, we should have $\text{test MSE} = \frac{1}{n_{\text{test}}} \sum_{i \in \text{test set}} (y_i - \hat{y}_i)^2 = \boxed{(\text{test RMSE})^2}.$
145	In the middle of the page, we should have “the value of $\hat{\beta}_0$ provides an estimate of the expected height of a <u>child</u> when his/her <u>parent</u> has zero height.”
156	At the bottom of the page, “Not only is the $R^2$ stays approximately...” should be “Not only does the $R^2$ stay approximately...” Also, “the RSE and adjusted $R^2$ of the model...” should be “the F-statistic and adjusted $R^2$ of the model...”
163	In the first line, RMSE should be RSE.
190	The displayed chunk should be CHUNK 16 instead of CHUNK 15.
205	The reference to CHUNK 9 should be to CHUNK 8.
237	Three lines before CHUNK 1, “understand” should be “understanding.”
267	<code>logit.full</code> should be <code>logit.final</code> .
270	In the last bullet point, age category 2 should be age category 3.
290	In the first bullet point, the sentence should be completed by changing “...strictly by” to “...strictly by <code>cp</code> .”
312	At the top, “as many as <code>mtry</code> ” should be “as many as <code>ntree</code> .”
313	In the last line, <code>mtry</code> should be <code>ntree</code> .
347	“more than observation” should be “more than <u>one</u> observation.”