Errata and updates for ASM Exam SRM Study Manual (First Edition Second Printing) sorted by page

Practice Exam 5:27 and 6:25 are defective in that none of the answer choices is correct.

[10/24/2018] On page 33, on the first line of the solution to Example 3B, change "The residual standard error is s" to "The mean square error is s^2".

[9/20/2018] On page 33, on the first line of the solution to Example 3C, change b_3 to b_2.

[3/12/2019] On page 49, in the solution to exercise 3.14, on the first and third lines, change s_{b_2} to s_{b_1}.

[9/25/2018] On page 76, one line above Quiz 5-3, change "sever" to "severe".

[9/25/2018] On page 78, in exercise 5.2, on the first line, change "3 variables" to "2 variables plus an intercept".

[4/23/2019] On page 82, in the solution to exercise 5.19, replace 1.1080, 34.6021, and 3.5600 with 1.0526, 5.8824, and 1.8868 respectively.

[4/23/2019] On page 86, in the solution to exercise 5.19, replace 1.1080, 34.6021, and 3.5600 with 1.0526, 5.8824, and 1.8868 respectively.

[9/25/2018] On pages 87–88, change the solution to Quiz 5-3, starting with the third line, to

$$\begin{aligned}\frac{6.42}{9} &= \frac{R^2}{1-R^2}\\ 0.713333 - 0.713333R^2 &= R^2\\ R^2_{(3)} &= \frac{1}{1.713333}\end{aligned}$$

The VIF is

$$\text{VIF}_3 = \frac{1}{1-1/1.713333} = \boxed{\mathbf{2.401869}}$$

[4/11/2019] On page 129, in the solution to exercise 9.6, 3 lines from the end, the 5141.2 in the denominator should not be squared. The line should read

$$\sqrt{6.993}\sqrt{1+\frac{1}{30}+\frac{(50-66.6)^2}{5141.2}} = 2.7570$$

[4/22/2019] On page 145, in exercise 11.19, on the second line of (i), change $S(y,\theta)$ to $S(y,\phi)$. In (ii), change $a(\theta)$ to $b(\theta)$.

[4/22/2019] On page 152, in exercise 11.19, on the second line of (i), change $S(y,\theta)$ to $S(y,\phi)$. In (ii), change $a(\theta)$ to $b(\theta)$.

[4/7/2019] On page 178, in the paragraph starting "The textbook discusses", delete the second sentence. The latest errata list for the Frees textbook corrects the errors. Also delete footnotes 5 and 6.

[4/7/2019] On page 190, delete the line under equation (14.9). The latest errata list for the Free textbook corrects the textbook error. Also delete the last sentence of the solution to Example 14C, and the last sentence on the page.

[4/7/2019] On page 192, delete footnote 3; the latest errata list for the Frees textbook corrects the textbook error.

[5/3/2019] On page 195, replace the solution to exercise 13.12 with

The systematic component is

$$1.5 + 0.4(0.5) + 0.2(0.7) = 1.84$$

The Poisson mean is $e^{1.84} = 6.296538$. We multiply the Poisson probabilities by

$$\frac{1-\pi_0}{1-e^{-\mu_i}} = \frac{1-0.25}{1-e^{-6.296538}} = 0.751385$$

The probability of 2 is

$$\Pr(y_i = 2) = \frac{1-\pi_0}{1-e^{-\mu_i}} e^{-\mu_i} \frac{\mu_i^2}{2} = 0.751385 e^{-6.296538} \frac{6.296538^2}{2} = \boxed{\mathbf{0.027446}}$$

[4/22/2019] On page 226, in Table 16.2, on the line for k-fold CV, reverse the two arrows; bias should have the down arrow, variance should have the up arrow.

[4/22/2019] On page 239, in Table 16.2, on the line for k-fold CV, reverse the two arrows; bias should have the down arrow, variance should have the up arrow.

[9/5/2018] On page 247, the subscripts of the third displayed formula on the page and the line after it are wrong. Replace those two lines with

$$z_{k1} = \sum_{j=1}^{p} \phi_{j1} x_{kj}$$

Since the means of the X_j are 0, the mean of Z_1 is also 0.

[12/30/2018] On page 249, in Figure 17.2, replace −9.01566 with −9.86072.

[5/8/2019] On page 249, in the paragraph before Section 17.2, on the first line, change "minimizes" to "maximizes". On the third line, change "minimize" to "maximize".

[5/16/2019] On page 250, on the sixth line, change x_{20} to p_{20}.

[5/16/2019] On page 253, in Table 17.1, on the eighth line, the one starting with "1.", change $\sum_{i=1}^{p}$ to $\sum_{j=1}^{p}$.

[4/11/2019] On page 283, in exercise 19.14, on the third line, change "variance" to "sample variance".

[5/8/2019] On page 399, in the solution to question 27, replace the last line with

$$\frac{3.1371}{\sqrt{3.1371^2 + 28 - (2+1)}} = \boxed{\mathbf{0.5315}}$$

None of the answer choices is correct.

[5/9/2019] On page 405, replace the solution to question 25 with

First we have to back out the loglikelihood of the model. Using equation (14.15),

$$R^2 = (\text{max-scaled } R^2)(1 - \exp(l_0/n)^2) = 0.80(1 - (e^{-0.4588})^2) = 0.480419$$

Then using equation (14.14),

$$\begin{aligned} 1 - R^2 &= \left(\frac{\exp(l_0/n)}{\exp(l(\mathbf{b})/n)}\right)^2 \\ \sqrt{1 - 0.480419} &= \frac{e^{-0.4588}}{e^{l(\mathbf{b})/100}} \\ e^{l(\mathbf{b})/100} &= \frac{0.632042}{0.720820} = 0.876837 \\ l(\mathbf{b}) &= 100 \ln 0.876837 = -13.1434 \end{aligned}$$

The AIC penalty is 2 times the number of parameters. The AIC is

$$\text{AIC} = -2l + 2p = -2(-13.1434) + 2(3) = \boxed{\mathbf{32.29}}$$

None of the answer choices is correct.