

Errata and Updates for ASM Exam MAS-II (Unnumbered Edition) Sorted by Date

[3/14/2023] On page 99, in exercise 10.3, on the second line, an x is missing in the exponent. The formula should read

$$f(x | \lambda) = \lambda e^{-\lambda x} \quad x > 0$$

Two lines after the formula, change 0.000001 to 0.0000001.

[3/13/2023] On page 99, in exercise 10.4, on the second line, an x is missing in the exponent. The formula should read

$$f(x | \lambda) = \lambda e^{-\lambda x} \quad x > 0$$

[3/13/2023] On page 172, two lines above equation (16.2), in the fraction, put a bar above X_i so that it reads

$$\frac{\sum_{j=1}^n (X_{ij} - \bar{X}_i)^2}{n-1}$$

[3/13/2023] On page 352, delete the footnote.

[3/13/2023] On page 413, 3 lines from the bottom of the page, change “ $\lambda_i = \log_exposures \dots$ ” to “ $\ln \lambda_i = \log_exposures \dots$ ”

[3/13/2023] On page 478, on the line above the first displayed expression, change “mean square error” to RSS. One line and three lines below the displayed expression, change MSE to RSS.

[3/13/2023] On page 479, delete footnote 1.

[3/13/2023] On page 501, replace the solution to exercise 38.5 with the following:

Splits I and III don't split at all; all observations go into R_2 . Split II puts (4,1) into R_2 and everything else into R_1 . There is no error for (4,1), whereas the error of the other 5 is the square difference from the mean, or the population (division by 5) variance times 5, which is 0.548. Split IV puts (1,0) into R_1 and everything else into R_2 . Once again, we can compute the RSS as the variance in R_2 , or 0.2824, times 5, or 1.412. Split V puts two observations, (3,2) and (2,2), into R_2 and the others into R_1 . The variance of the observations in R_1 is 0.451875 so the sum of squares is $4(0.451875) = 1.8075$. The RSS for R_2 is $(1.5 - 1.75)^2 + (2 - 1.75)^2 = 0.125$. The total RSS for this split is $1.8075 + 0.125 = 1.9325$. Split II minimizes the RSS. **(B)**

[3/13/2023] On page 506, in the table, change x_{62} from 1 to -1 .

[2/14/2023] On page 277, on the second line from the end of the page, change $\hat{\beta}_1 = 0.78125$ to $\hat{\beta}_1 = 0.5$. Also put a hat on the β_1 at the end of the line.

[11/3/2022] On page 406, replace the solution to exercise 33.9 with

The first sum of two consecutive ρ s that is negative is $0.015 - 0.02$, so $t = \boxed{35}$.

[11/1/2022] On page 200, in the paragraph beginning with “1.”, on the last line, change “would it” to “would fit”.

[11/1/2022] On page 231, the last line of the solution to exercise 19.6, “Later on in the course ...”, belongs after the solution to exercise 19.5, and is not correct for exercise 19.6.

[11/1/2022] On page 763, in the solution to question 4, on the second to last line, change $\frac{0.1(\mu_s^2 + \sigma_s^2)}{0.2\mu_s^2}$ to $\frac{0.1(\mu_X^2 + \sigma_X^2)}{0.2\mu_X^2}$.

[11/1/2022] On page 798, in the solution to question 21, change the numbering to I, II, III, and change III to

The WAIC calculation changes when data is aggregated since the aggregated likelihoods are multiplied by binomial coefficients. ✕

Change the answer key to **(E)**.

[9/8/2022] On page 470, in exercise 37.10, in the three bullets, the models should be numbered as Model I, Model II, and Model III respectively.

[8/17/2022] On page 268, in exercise 24.2, on the first line, change “variable” to “variables”.

[8/17/2022] On page 272, in the solution to exercise 24.1, on the line under “Level 1”, delete the duplicate “ $u_{3k} \times \text{VAR}_{3k}$ ”.

[8/17/2022] On page 273, replace the solution to exercise 24.2 with

Level 1

$$\text{ACCIDENTS}_{ij} = b_0 + b_1 \times \text{SEX}_{ij} + b_2 \times \text{TICKETS}_{ij} + b_3 \times \text{ACC}_{ij} + \varepsilon_{ij}$$

Level 2

$$b_0 = \beta_0 + \beta_4 \times \text{REGISTRATIONS}_j + \beta_5 \times \text{ROADMILES}_j + u_{0j}$$

$$b_1 = \beta_1 + u_{1j}$$

$$b_2 = \beta_2 + u_{2j}$$

$$b_3 = \beta_3 + u_{3j}$$