

## Errata and Updates for ASM Exam MAS-I (First Edition) Sorted by Date

[5/17/2018] On page 416, in the solution to exercise 29, replace the fifth and sixth lines with

$$\left(\frac{\theta}{1.82}\right)^\tau = -\ln 0.4$$

$$\left(\frac{\theta}{12.66}\right)^\tau = -\ln 0.8$$

[5/15/2018] On page 412, in the solution to exercise 28.18, on the second to last line,  $\left(\frac{6}{9}\right)^\tau = \frac{\ln 0.75}{\ln 0.25} = 0.20752$  should be moved to a separate line.

[5/15/2018] On page 412, in the solution to exercise 28.19, on the last line of the page, change  $\ln 0.2$  to  $\ln 0.4$ .

[5/10/2018] On page 359, in the solution to exercise 26.18, on the second line, change  $-1.33$  to  $-0.67$ . On the third line, change  $0.0159$  to  $0.1587$ . On the last line, change  $0.1067$  to  $0.1047$ .

[3/30/2018] On page 766, in the solution to exercise 49.2, replace the last line with

$$r_3 = \frac{\hat{\varepsilon}_3}{s\sqrt{1-h_{33}}} = \frac{1.2}{2\sqrt{1-0.6}} = \boxed{0.948683}$$

[3/13/2018] On page 780, 2–3 lines from the bottom of the page, change “at 1% significance but not at 2% significance” to “at 2% significance but not at 1% significance”.

[3/4/2018] On page 841, replace the solution to exercise 54.2 with

We need 4 variables for AGE, 1 for SEX, 1 for BLOOD PRESSURE, and 1 for CHILDREN, a total of 7 variables. We start with 1 model with just the intercept, then consider 6 models for the first variable to add, 5 for the second, and so on. Total number of models considered is

$$1 + \sum_{k=0}^6 (7-k) = 1 + \frac{(7)(8)}{2} = \boxed{29}$$

[2/19/2018] On page 295, in the solution to exercise 23.9, on the second line, replace  $2.51$  with  $2.52$ . Replace the sixth line with

$$x_2 = e^{0.75(2.52)+5.6} = 1790.05$$

Replace the last line with

$$\frac{241.21 + 1690.05 + 526.41 + 0}{4} = \boxed{614.42} \quad (\mathbf{A})$$

[2/19/2018] On page 780 in the table at the top of the page, and in the corresponding table on page 786, change the second column of the  $D_A$  and  $D_B$  lines to match the following table:

Model	Sum of Squares	Deviance
$Y = \mu + \varepsilon_{ij}$	SST	$D_M$
$Y = \mu + \alpha_i + \varepsilon_{ij}$	SST – SSTR	$D_A$
$Y = \mu + \beta_j + \varepsilon_{ij}$	SST – SSB	$D_B$
$Y = \mu + \alpha_i + \beta_j + \varepsilon_{ij}$	SSE	$D_I$

Interchange formulas (51.9) and (51.10) on pages 780 and 786; in other words, change  $D_B$  to  $D_A$  in formula (51.9) and  $D_A$  to  $D_B$  in formula (51.10)

[2/19/2018] On page 805, in the solution to exercise 51.26, change  $D_A$  to  $D_B$  all three times it appears, and change  $D_B$  to  $D_A$  all two times it appears.

[2/19/2018] On page 806, in the solution to exercise 51.29, on the second and last lines, replace 2.361 with 3.056. Replace the final answer with 2970.43.

[1/28/2018] On page 771, in the solution to exercise 50.3, change the first displayed line to

$$s = \sqrt{\frac{\text{SSE}}{n-2}} = \sqrt{\frac{5245}{23}} = 15.101$$

Change the third displayed line to

$$15.101 \sqrt{1 + \frac{1}{25} + \frac{(100 - 223)^2}{958,356.8}} = 15.517$$

Change the last line to  $547.26 + 2.069(15.517) = \boxed{579.4}$ .

[1/27/2018] On page 649, in the solution to exercise 43.2, on the last line, remove the negative signs before the two  $\ln$  xs:  $a(x) = \ln x$  and  $a(x) = (\ln x)/\sigma^2$ .

[1/27/2018] On page 650, replace the solution to exercise 43.5 with

The linear component is  $22 + 15 + 0 = 37$ . Inverting the link,  $\mu = 37^2 = \boxed{1369}$ .

[1/27/2018] On page 747, in exercise 48.20, in the table, change II on the last line to III. On the line below the table, change  $\beta_1 + \beta_2 = 1$  to  $\beta_2 + \beta_3 = 1$ .

[12/27/2017] On page 302, in exercises 24.4 (line 3) and 24.5 (line 4), change  $U_1 < cq(x)$  to  $U_2 < cg(x)$ .

[12/27/2017] On page 302, in exercise 24.9, delete the second sentence.

[12/27/2017] On page 303, in the solution to exercise 24.2, replace the last two sentences with

The first and second numbers are accepted. The other two are rejected because  $0.44 > 0.4224$  and  $0.34 > 0.2944$ . The average of the accepted numbers is  $(1.28 + 0.76)/2 = \boxed{1.02}$ .