

Errata and Updates for ASM Exam MAS-II (Third Edition) Sorted by Page

[8/22/2021] On page 129, in exercise 12.15, in the fourth through sixth bullets, change “Risk group R” to “Risk group T”.

[8/22/2021] On page 129, in exercise 12.16, on the tenth line, change “Group SR” to “Group S”.

[7/23/2021] On page 161, in the solution to exercise 14.14, replace the first two lines with:

Expected claims are $0.2(1800) = 360$. The limited fluctuation estimate is based on a credibility factor of $Z = \sqrt{360/1083} = 0.5766$, and is

$$0.5766 \left(\frac{200}{1800} \right) + (1 - 0.5766)(0.2) = 0.1488$$

Replace the last line with:

The percentage change is $0.1724/0.1488 - 1 = \boxed{+15.91\%}$. (E)

[8/3/2021] On page 386, in equation (33.1), change θ_{prop} to $p(\theta_{\text{prop}})$ and θ_{curr} to $p(\theta_{\text{curr}})$, where p is the prior density function.

[8/3/2021] On page 388, in equation (33.1), the right parenthesis after “Data” in the denominator should be moved to after θ_{curr} , also in the denominator.

[9/9/2021] On page 485, in the solution to exercise 38.10, on the last line, change “one N” to “two Ns”.

[9/9/2021] On page 486, in the solution to exercise 38.15, the signs of the ε_i in the table should be reversed; they should also be reversed in the two fractions two and five lines below the table. Thus the table and the following lines should read:

X_i in training set	Nearest two points	Fitted value	Y_i	ε_i
4	4,12	$\frac{3+15}{2} = 9$	3	-6
7	4,12	$\frac{3+15}{2} = 9$	8	-1
12	12,14	$\frac{15+22}{2} = 18.5$	15	-3.5
14	14,15	$\frac{22+30}{2} = 26$	22	-4
15	14,15	$\frac{22+30}{2} = 26$	30	4
21	15,22	$\frac{30+53}{2} = 41.5$	40	-1.5
22	15,22	$\frac{30+53}{2} = 41.5$	53	11.5

The MSE on the training data is

$$\frac{(-6)^2 + (-3.5)^2 + (-4)^2 + 4^2 + 11.5^2}{5} = \boxed{42.5}$$

We divide by 5 since no parameters are estimated.

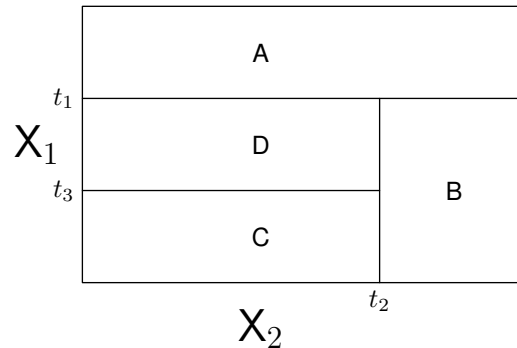
The MSE on the test data is

$$\frac{(-1)^2 + (-1.5)^2}{2} = \boxed{1.625}$$

[9/9/2021] On page 494, in formula (39.5), a 2 is missing from the numerator. The formula is

$$\text{Residual mean deviance} = -\frac{2\sum_m \sum_k n_{mk} \ln \hat{p}_{mk}}{n - |T|}$$

[10/3/2021] On page 498, in the graph of answer choice (B), t_1 and t_3 should be interchanged, so that the graph looks like this:



[8/24/2021] On page 526, exercise 40.5, while the exercise can be worked out, the second and third bullets are false. The first principal component loading for X_1 is $1/\sqrt{2}$, and the first principal component loading for X_2 is negative.

[9/9/2021] On page 543, in the sidebar, 2–3 lines below the displayed equation, switch i and i^* : “once for each i (for the first summand) or for each i^* (for the second summand)”.

[9/9/2021] On page 555, in exercise 41.21, replace the last line with the answer choices:

- (A) I only (B) II only (C) III only (D) I, II, and III
 (E) The correct answer is not given by (A), (B), (C), or (D).

[9/26/2021] On page 763, replace the solution to question 1 with:

Model 4 is nested within Model 3 which is nested in Model 2 which is nested in Model 1. Model 2 is also nested within Model 5.

Model 2 deletes one random effect from Model 1, so REML is needed for both of them. Model 3 deletes a fixed effect from Model 2, so ML is needed for both. Model 4 deletes a random effect from Model 3, so REML is needed for both of them. We see that the REML runs of Model 1, Model 2, and Model 3 are all used. REML and Model 2 REML are used, but Model 3 REML is not used. **(E)**