

Errata

A Modern Introduction to Probability and Statistics First printing

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In the main text

- p.336 Solution to Quick Exercise 22.2. “Rewriting $\hat{\alpha} = \bar{y}_n - \hat{\beta}$,” should read “Rewriting equation (22.2): $\hat{\alpha} = \bar{y}_n - \hat{\beta}\bar{x}_n$ ”.
- p.366 h^{-1} en g^{-1} should be h^{inv} en g^{inv} .
- p.393 Third line of this page: $\theta_0 \neq \theta_0$ should be $\theta \neq \theta_0$.
- p.402 In Quick Exercise 27.2: “at level $\alpha = 0.05$ ”.
- p.405 Replace “annual mortality rate (percentage of deaths)” by “annual mortality rate (number of deaths per 100 000)”.

In the figures

- p.237 in Figure 16.4 left hand side the y -axis should be expressed in seconds—as the right hand side.
- p.264 In the caption of Figure 17.12 “and empirical distribution function” is added.
- p.330 In Figure 22.1: instead of “The regression line $y = \alpha x = \beta$.” the text labeling the regression line should read “The regression line $y = \alpha + \beta x$.”
- p.406 Replace “mortality rate (%)” by “mortality rate” in Figure 27.3. Also: multiply the numbers on the vertical axis by 1 000.

In the exercises

p.39 \square symbol has been added in Exercises 3.14 and 3.16.

p.39 Exercise 3.16**b** is not complete. Addendum:

The “unconscious” way to do this is to replace $P(D)$ by the answer you found in **a** and then perform the calculation from part **a** again. If you do it the *conscientious* way, you try to compute $P(D | S \cap T)$, where S is the event “the second test says you have the disease”. You will find that you need the independence assumption $P(S \cap T | D) = P(S | D)P(T | D)$ and a similar one for D^c .

p.52 In Exercise 4.4: add “(once!)” to “each coin is tossed again”.

p.113 Exercise 8.16 is pointing to a non-existing exercise in Chapter 11. Action: remove the ‘Remark’.

p.113 Add in Exercise 8.17: ‘continuous’ (it points to Exercise 8.9).

p.144 Exercise 10.1 has been replaced by a completely new exercise. Although not wrong, the old exercise was somewhat peculiar since it was taking expectations of hair colors.

p.146 For the sake of uniformity: exchange a en b in Exercise 10.7 en change $p_X(a)$ en $p_Y(b)$ into $P(X = a)$ and $P(Y = b)$.

p.203 Exercise 14.1 is not wrong, but its solution is 1, which is confusing for certain students. The question now is $P(X_1 + \dots + X_{144} > 264)$; the answer is then $1 - \Phi(-1)$.

p.241 In Exercise 16.4, it is better to give the sample mean as 492/11 instead of 44.7). Similarly write $\sqrt{482/11}$ for the standard deviation for the Wick data in Exercise 16.5.

p.281 Since Exercise 18.6**a** is the same as Exercise 5.11 this has been set in the text.

p.371 Exercise 24.9: “ $\leq c_u$ ” should be “ $\geq c_u$ ”.

p.428 In Exercise 28.6 **d** en **e** S_p^2 should be changed to S_d^2 .

In the answers and full solutions

- p.445 The full solution answer to Exercise 2.14**b** is not correct: “candidate wins the car” is the event $\{(a, b), (a, c)\}$.
- p.435 Answer to Exercise 4.1**c**: $25/36$ instead of $253/36$.
- p.450 In the Full solution of Exercise 6.12 replace “We sell the our shares” by “We sell our shares”.
- p.450 In the Full solution of Exercise 7.15**a** a “)” and “2” a should be interchanged.
- p.452 Full solution to Exercise 9.9**c** is not correct: A factor 2 is missing in the second integral.
- p.438 Answer van Exercise 11.1**a** is not correct: for k between 7 and 12 the summation runs over $\ell = k - 6, \dots, 6$. Also: in the answer of Exercise 11.1**b** the last $2N$ should be N .
- p.457 Remove the **e** following Exercise 12.1. Also: replace 1,2,3,4,5 by a,b,c,d,e.
- p.458 Full solution to Exercise 13.4**c**: change “size 0.2 or” ... “or” to “size 0.2 or larger occurs”
- p.439 The answer to Exercise 13.8**a**: change “where \bar{Y}_n as in” to “with \bar{Y}_n as in”; also change “the standard deviation” in **a** to “variance.”
- p.439 Answer to Exercise 13.8**b**: change 801 in to 799.
- p.439 Answer to Exercise 14.6**a**: $P(X < 26) \approx 0.5910$.
- p.463 In the full solution to Exercise 18.8**a**: replace “ \bar{x}_n is” by “ \bar{x}_n^* is”.
- p.464 In the full solution to both 18.8**b** and 18.8**c**: replace “ \bar{x}_n is” by “ \bar{x}_n^* is”.
- p.464 In the full solution of Exercise 19.1**b**: $g''(x) = x^{-3/2}/4$.
- p.466 In the full solution of Exercise 21.8**b**:
the equation should be $3839\theta^2 + 1655\theta - 64 = 0$.
- p.443 In the answer of Exercise 26.6**b** the critical region consists of integers: $\{1536, 1537, \dots\}$.