Errata for
A Course in Probability and Statistics
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Please inform Professor Stone of any new errors that you find in the text.

Page 7, line −6: \( \mathbb{R}^n \) should be \( \mathbb{R} \)
Page 25, line 11: \( B \in [0, 6] \) should be \( B \subset [0, 6] \)
Page 53, lines 3–5: \( \log p/(1 - p) \) should be \( \log[p/(1 - p)] \)
Page 60, line 2 of top paragraph: “tranform” should be “transform”
Page 79, Problem 1.113 should be deleted
Page 104, first line of Example 2.39: “mean” should be “mean and variance of the”
Page 112, Solution to Example 2b: \( \approx \) should be \( \hat{=} \) in two places
Page 118, 2 lines above Example 2.49: \( S/\sqrt{N} \) should be \( S/\sqrt{n} \)
Page 119, solution to Example 2.50(b): (30) should be (61) and (29) should be (60)
Page 127 line 3 after Table 2.7: “distribution function” should be “distribution”
Page 145, Problem 3.13: \( y \in \mathbb{R} \) should be \( y > 0 \) in (a) and (b)
Page 149, line 3 of proof of Theorem 3.7: \( Y \) should be \( a + bY \)
Page 176, line 2 of solution to Example 4.18: \( f(y) \leq 2 \) should be \( f(y) \leq f(2) \)
Page 216, 6 lines above (17): “utility” should be “utility”
Page 239, Example 5.16(b): “best linear” should be “best linear predictor”
Page 250, line 2: \( \text{cov}(Y) \) should be \( \text{cov}(X, Y) \)
Page 258, line 2 of Proof of Theorem 5.23: \( i = 1 \) should be \( j = 1 \)
Page 269, second set of displays: \( f_{Y_1, \ldots, Y_n} \) should be \( f_{Y_1, \ldots, Y_n} \) and

\[
\sum_{i=1}^{n} \text{ should be } \prod_{i=1}^{n}
\]
Page 271, in two displays in proof of Theorem 5.2, 0 should be \( \emptyset \)
Page 271, in display in solution to Example 5.34: 0 should be \( \emptyset \)
Page 284, line 3 of Problem 6.1: “ball white” should be “ball”
Page 284, line 3 of Problem 6.5: “Show” should be “Show that”
Page 291, line 4 of Problem 6.4: “three” should be “four” in three places
Page 296, last line before Example 6.17: \( \ldots, [r] \) should be \( \ldots, [r] \)
Page 306, line −2 of proof of Theorem 6.2: \( x \) should be \( x \)
Page 308, line 4: \( x \) should be \( x \)
Page 308, line 6: \( x \) should be \( x \) in two places
Page 335, line −2: “Problem 4.19” should be “Problem 4.20”
Page 339, first display: \( n_1 \) should be \( n_2 \) in denominator of formula for \( \bar{Y}_2 \)
Page 340, last line: \( \hat{\tau} \) should be \( \tau \)
Page 345, line 1 of solution to Example 7.7: 7.446 should be 7.746
Page 346, last line: \( \int 2w \, dw \) should be \( \int 2w \, dw \)
Page 356, last line: $\hat{\tau}$ should be $\hat{\mu}$
Page 358, second display: $\hat{\mu}$ should be $\hat{\tau}$
Page 355, line 1 following Table 7.5: “second machine.” should be “second machine are shown in Table 7.5.”
Page 357, last line of solution to Example 7.19(b): $\pm 2.33$ should be $2.33$
Page 354, line 2 following solution to Example 7.23: “random selected” should be “randomly selected”
Page 358, Problem 7.59. The first sentence should read: Consider the normal $d$-sample model with $d \geq 2$, $\mu_1 = \cdots = \mu_d$, and $n_1 = \cdots = n_d = r$.
Page 362, line 2: $\hat{\beta}_0$ should be $n\hat{\beta}_0$
Page 403, line 2: “infinitely least-squares” should be “infinitely many least-squares”
Page 420, third and fourth displays: $x_i$ should be $x_i$
Page 434, Equation (7): In last entry of left-hand-side, $g_1$ should be $g_p$
Page 451, line 1 of solution to Example 9.21: (3) should be (13)
Page 484, Problem 9.67(b): $\langle G, h \rangle$ should be $\langle g, h \rangle$
Page 492, line 10 after solution to Example 9.38: “$b^*_1$, $b^*_1$, and $b^*_1$” should be “$b^*_1$, $b^*_1$, and $b^*_3$”
Page 501, line 1 of proof of Theorem 10.6: (22) should be (21)
Page 527, line 4: $1 \leq k \leq 5$ should be $1 \leq j \leq 5$
Page 554, line 7 after fourth display: $\tau = \beta_3 - \beta_1$ should be $\hat{\tau} = \hat{\beta}_3 - \hat{\beta}_1$
Page 554, left-hand-side of fifth display: $[-1 \, 1]$ should be $[-1, 1]$
Page 555, first display in second paragraph of solution to Example 10.15: the $2 \times 2$ matrix in the left-hand-side doesn’t agree with the corresponding $2 \times 2$ submatrix of the matrix on page 534 because of the different choice of basis, but the value shown for the standard error of $\hat{\tau}$ is correct
Page 575, Table 10.35: in the first value of $Y$ corresponding to the second design point: 13.0 should be 13.1
Page 580, first line following the proof of Theorem 11.1: “Theorem 1.11” should be “Theorem 11.1”
Page 616, line 5 of second paragraph: Table 11.24 should be Table 11.23
Page 640, line 3 after (5): $\nabla h(\mu) \neq 0$ should be $\nabla h(\mu) \neq 0$
Page 674, line 5: “corresponding” should be “corresponding”
Page 707, display in Problem 13.35: $\beta$ should be $\beta$
Page 718, line 5: $\hat{\sigma}_1$ should be $\sigma^2_1$
Page 723, line 6 of Problem 13.51: $\hat{\theta}_0 = 100$ should be $\hat{\theta}_0 = -10$
Page 770, second additional property of covariances: $C_{\text{cov}}$ should be $\text{cov}$
Page 786, first display of summary of Poisson models: $\lambda_k n_k$ should be $\lambda_k / n_k$
Page 799, answer to Problem 1.62: \( \frac{1}{\log(40/39)} \) should be \( \log(40/39) \)

Page 802, answer to Problem 3.16: \( 5 + \) should be \( .5 + \)

Page 803, answer to Problem 4.40: \( 6^{r+1} \) should be \( 6^{6r+1} \)

Page 803, line 7 of answers to Section 4.5: the first 4.66 should be 4.65

Page 804, answer to Problem 9.25(a): In the entry in row 1 and column 3 of the matrix, 0 should be 1

Page 813, answer to Problem 9.72(c): In the left-hand-side of the second equation, \( 34b^2 \) should be \( 34b^5 \); in the left-hand-side of the third equation, \( 34b^0 \) should be \( 34b^2 \); in the left-hand-side of the fourth equation, \( 130b^2 \) should be \( 130b^3 \)

Page 815, answer given for Problem 10.13 should be the answer to Problem 10.14

Page 816, answer given for Problem 10.21(b) should be answer to Problem 11.21(b); answer given for Problem 10.22 should be answer to Problem 11.22; answer given for Problem 10.24(b) should be answer to Problem 11.24(b)