# TPS 6e STUDENT EDITION Errata

- Page 50, Exercise 66: The key for the stemplot should say "2|3 = 225-234 minutes"
- Page 82, What Did You Learn box:
    - For the learning target "Identify the individuals and variables in a set of data", the related example is on page **3**.
    - For the learning target "Classify variables as categorical or quantitative", the related example is on page **3**.
- Page 83, What Did You Learn box:
    - For the learning target "Explain how outliers and skewness affect measures of center and variability", the associated Chapter Review exercise is **R1.9**
- Page 86, Exercise T1.7 should read "The mean salary of all female workers **at a company** is $35,000. The mean salary of all male workers **at the company** is $41,000. What must be true about the mean salary of all workers **at the company**?
- Page 104, Exercise 4: Part (b) should say that Joelle is at the **12th** percentile of the distribution.
- Page 106, Exercise 17: The bone density in Judy's hip should be **0.948 g/cm²** and the bone density in the reference population should be **0.956 g/cm²**.
- Page 106, Exercise 18: The bone density in Mary's hip should be **0.948 g/cm²** and the bone density in the reference population should be **0.944 g/cm²**.
- Pg 190 / 201 (update) -- The scatterplot in Fig 3.16(a) is missing a point at (26, 71). Note that the residual plot in Fig 3.16(b) and the follow up scatterplot later on the page include the point at (26, 71).
- Page 269/297 (update), Exercise 90: In options (a) and (b), change "several" to "**two or more**".
- Page 284/312 (update), Exercise 119: The next to last row of the two-way table should be labeled "**Strongly disagree**" instead of "Strongly agree"
- Page 323/351 (update): In Figure 5.6(c), the label above the third diagram incorrectly shows the intersection symbol and should show the union symbol: $\mathbf{A \cup B}$
- Page 349/377 (update): In Exercise 71, add the sentence "Suppose we choose 1 member of the sample at random." prior to "Are the events…"
- Page 376/404 (update): Exercise 4 should read "Express the event "**Ana** scores…" (her name was misspelled)
- Page 383: About midway down the page, the left-hand side of the formula for calculating the standard deviation should say σ_V.
- Page 401/429 (Updated): In Exercise 68, the last sentence should start "Find the probability that Barsha beats **Andrea**…"
- Page 443/471 (Updated): In part (b) of the solution to the example, it should say "**Sample: the 20 randomly selected times.**"
- Page 451: Figure 7.6 should have 400 dots. Correction doesn't affect shape, center, or variability of distribution, however. *Will receive SME review.*
- Page 533: On the histogram, the label "3.5" on the horizontal axis should be half of a bar to the left. *Will receive PM review.*
- Page 553: In the first paragraph below the Figure 9.1 caption, change the parenthetical expression in the first sentence to $(\hat{p} \le 0.64)$.
- Page 555: In the Example Solution, add units to the parameter: "...where μ = the true mean weight **(in ounces)** of all pineapples grown in the field this year."
- Page 556: In the Check Your Understanding, Question 2's last sentence should say "We suspect that the **average time** it takes to complete the form…"
- Page 562: In the Check Your Understanding, Question 3 should say "Based on your answer to Question **2**, …"
- Page 567: Exercise 34 parenthetical reference should be **(8.1)** not (8.2).

- Page 569, 2nd paragraph of narrative: In the sentence starting "Let's check the condition…", delete the word **virtual.**
- Page 569, Example: In the third line of the problem statement, change "local" to "large".
- Page 571, Example: In the first line of the problem statement, change "local" to "large".
- Page 606, Exercise 67 / Page 714, Exercise 3 (update): <Note the two numerical changes in the question stem and the corrected graph.> A tablet computer manufacturer claims that its batteries last an average of **11.5** hours when playing videos. The quality-control department randomly selects 20 tablets from each day's production and tests the fully charged batteries by playing a video repeatedly until the battery dies. The quality-control department will discard the batteries from that day's production run if they find convincing evidence that the mean battery life is less than **11.5** hours. Here are a dotplot and summary statistics of the data from one day:
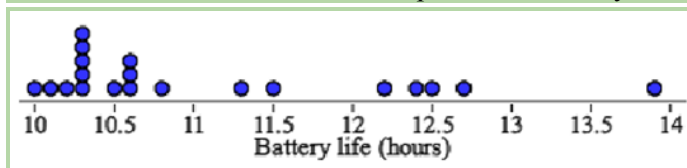
- Page 608, Exercise 79 / Page 716, Exercise 15 (update): In part (a), line 2 should say "the true **mean** hardness μ of the tablets…"
- Page 610, Exercise 98 / Page 717, Exercise 24 (update): Line 8 should say "where μ = the **average** time…"
- Page 697, Exercise R10.7: In part (d), the second sentence should refer back to the test in **part (c).** *Will receive PM review.*
- Page 783/827 (update): The secondary title of the example should say "Significance Test for β_1" with the subscript 1.
- Page 799/217 (update): In the example, the first teacher talk box needs a "hat" over the cube root of y.
- Page 802/220 (update): About halfway through the Think About It, it should say "$p = 3.04942$" rather than "$b = 3.04942$."
- Page 818: The word "Statistics" should be deleted from the second sentence of the introduction to exercises 12.57 and 12.58: Exercises 57 and 58 refer to the following setting. About 1100 high school teachers attended a weeklong summer institute for teaching AP® ~~Statistics~~ classes. After learning of the survey described in Exercise 56, the teachers in the AP® Statistics class wondered whether the results of the tattoo survey would be similar for teachers. They designed a survey to find out. The class opted to take a random sample of 100 teachers at the institute. One of the questions on the survey was: Do you have any tattoos on your body?


Back-of-Book Solutions

- Page 22 Check Your Understanding Question #3 solution: In the segmented bar graph, the label for the variable on the horizontal axis should be **Treatment**, not "Heights (cm)"
- 1.23(b) should read: **29/150 = 19.3% said they saw broken glass and 121/150 = 80.7% said that they did not**.
- R1.6 (a)

```
48 | 8
49 |
50 | 7
51 | 0
52 | 6799
53 | 04469
54 | 2467
55 | 03578
56 | 12358
57 | 59
58 | 5
```

- 2.41(a):

Time spent waiting for
the bus (min)
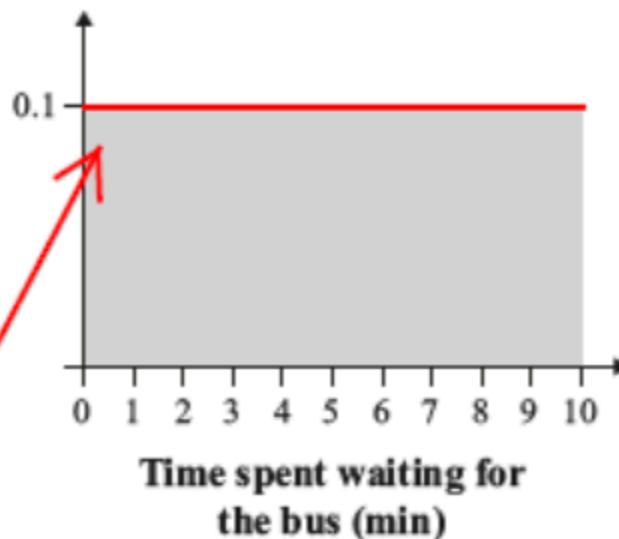
- 2.17(b) The equation should be $-1.45 = \frac{0.948 - 0.956}{\sigma}$ and the solution should be $\sigma = 0.0052$ g/cm².

- 3.59(d) has the wrong units in two places. It should be in terms of **cups**, not ml.
- T4.6 should have (**d**) as the correct answer.
- 5.85: In the tree diagram, the bottom branch should say **Antibodies absent**, not present.
- Page 556 Check Your Understanding Question #2 solution should be modified to say "true mean amount of time **(in minutes)** it takes to complete the census form.
- 9.27(b) and (c) should state that the p-value is **24/200 = 0.12**, not 24/100 = 0.24:

(b) Based on the simulation results, 24 of the **200** simulated trials yielded a sample proportion of 0.16 or greater, so the *P*-value is approximately **24/200 = 0.12**. Assuming that the true proportion of all students at Simon's school that are left-handed is 0.10, there is a **0.12** probability of getting a sample proportion of 0.16 or greater just by chance in a random sample of 50 students. (c) Use alpha = 0.05. Because the *P*-value of **0.12** > alpha = 0.05, we fail to reject H_0. We do not have convincing evidence that the true proportion of all students at Simon's school that are left-handed is greater than 0.10.

- 9.67 *<Based on changes to exercise described above>* (a) H_0: μ=11.5; H_a: μ< 11.5, where μ = the true mean battery life when playing videos for all tablets.
- 9.71(b) is missing the *P*-value interpretation. "**Assuming that the true mean SSHA score for older students is 115, there is a 0.0101 probability of getting a sample mean of at least 125.7 by chance alone.**" *Will receive SME review.*
- R9.2(b) should state "**Large Counts**" instead of "Normal/Large Sample". *Will receive PM review.*
- R10.2: STATE: "**99%** CI for..." (Note that the rest of the problem is correct). *Will receive PM review.*
- R10.6(c)/R11.4 (update) the STATE step should read "...using α = **0.01**" and the CONCLUDE step should read: "CONCLUDE: Because the *P*-value of 0.0382 > α = **0.01, we fail to reject H_0.** There is **not** convincing evidence that the true mean difference in test scores for students like these who get the treatment message is greater than the true mean difference in test scores for students like these who get the neutral message."
- R10.7(a)/R11.5 (update) is missing a description of what the graph suggests about whether starting blocks are helpful. "**There is some evidence that starting blocks are helpful at improving 50-meter run times for sprinters like these. Seven of the 8 subjects ran the 50-meter dash faster using a starting block than from a standing start.**"
- 11.60 - The correct answer is **(b).**