

Errata for Precalculus, Version $[\pi] = 3$ by Carl Stitz and Jeff Zeager

Note: This list contains all of the mathematical errors which have been brought to our attention and only the most egregious grammar errors. Thus there are known grammar errors which are not included in this list because those errors don't impact the mathematical correctness of the text. All known errors will be fixed in the fullness of time. Our thanks go to those who have brought errors to our attention. Without their careful reading, some of these mistakes would have lived forever.

p.2 #4 in the box should be $\mathbb{Z} = \{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$

p.4 Third row in top box, middle entry should be $(-\infty, 5]$

p.14 Eighth row in box, middle entry should be $(-\infty, 9)$

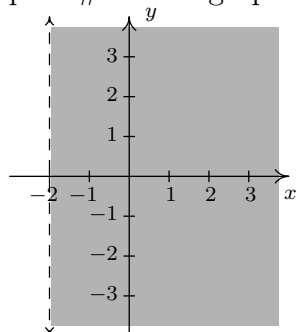
p.17 Seventh row in box, middle entry should be $(-\infty, 3]$

p.17 Eighth row in box, middle entry should be $(-\infty, 9)$

p.18 #15 should be $(-\infty, \infty)$

p.29 #3 should be $\{(m, 2m) | m = 0, \pm 1, \pm 2\}$

p.35 #15 The graph should look like this:



p.36 #25 should be $E = \{(x, 2) | -4 \leq x < 3\}$

p.53 #6 answer should be Function, domain = $\{x | x \text{ is irrational}\}$, range = $\{1\}$

p.53 #7 answer should be Function, domain = $\{x | x = 2^n \text{ for some whole number } n\}$, range = $\{y | y \text{ is any whole number}\}$

p.53 #8 answer should be Function, domain = $\{x | x \text{ is any integer}\}$, range = $\{y | y = n^2 \text{ for some integer } n\}$

p.63 #1, #4 and #5 are missing the word “by” in the phrase “multiply **by** 2”

p.64 #35 is missing the “ifs” in the function definition

$$f(x) = \begin{cases} x + 5, & \text{if } x \leq -3 \\ \sqrt{9 - x^2}, & \text{if } -3 < x \leq 3 \\ -x + 5, & \text{if } x > 3 \end{cases}$$

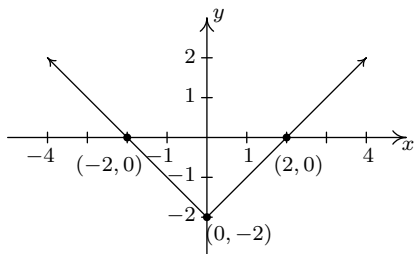
p.103 parts 9 through 14 should be numbered 11 through 16.

$$p.107 \#15 \text{ should be } f(x) = \begin{cases} -3 & \text{if } x < 0 \\ 2x - 3 & \text{if } 0 \leq x \leq 3 \\ 3 & \text{if } x > 3 \end{cases}$$

p.117 #49 answer should be $[-4, -1] \cup [1, 3]$

p.118 #89 answer should be “... is constant (at 8 feet) for these years.”

p.144 #20 the labeling on the graph should read



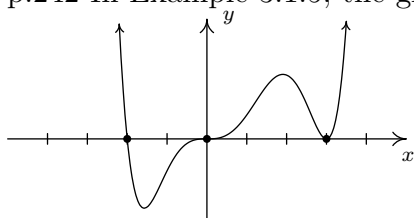
p.171 #36 answer is missing $N(20) = \frac{35}{3} \approx 12$ howls per hour.

p.190 In the fourth row after the Theorem 2.2 box, the function should be

$$f(x) = -2(x - 3)^2 + 1$$

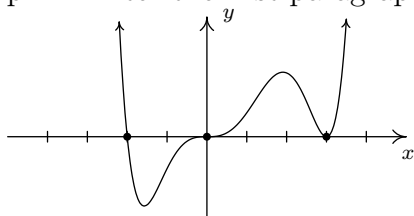
p.213 In the graph for part 4, the endpoints of the intervals on the x -axis should be included because $x = \pm 2$ are in the solution set.

p.242 In Example 3.1.5, the graph on the right should look more like



A sketch of $y = f(x)$

p.244 After the first paragraph, the graph on the right should look more like



A sketch of $y = f(x)$

p.268 #45 $p(x) = a(x + 6)(x - 1)(x - 117)^2$ satisfies the conditions as well

p.282 #1 ± 6 are also possible rational zeros.

p.282 #2 the interval should be $[-41, 41]$

p.282 #4 the interval should be $[-12, 12]$

p.329 In part 5, the slant asymptote is $y = 2x - 1$

p.412 The answers to #6 and 7 are in the wrong order

p.417 The middle entry of the fourth row in the table should read " $2^{-1} = \frac{1}{2}$ "

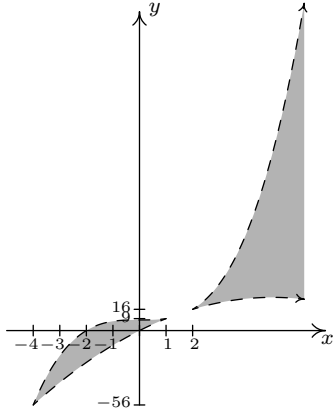
p.454 The sentence just above the graphs should read "...is our graph of $y = T(t)$..."

p.492 #21(a) "...GDP of the US in 2000 was ..."

p.502 #17 Assume that the ground is the x -axis.

p.630 In Theorem 8.10 we used the letter c in two different ways. Change the beginning of each bulleted sentence to read "If α is a real zero of D ..."

p.649 The graph of $\begin{cases} y > 10x - x^2 \\ y < x^3 + 8 \end{cases}$ should look more like this:



p.658 The sequence in #2 should be $d_j = (-1)^{\frac{j(j+1)}{2}}$

p.658 #10 should have $j \geq 1$ as opposed to $m \geq 1$.

p.672 The answer to #11 should be $\sum_{k=1}^4 \frac{x^{2k-1}}{2k-1}$

p.717 In the Solution to part 1 the last sentence should read "...so that $\cos(270^\circ) = 0$ and $\sin(270^\circ) = -1$."

p.731 In the Solution to part 1 the end of the sentence should read "...and $\sin(\theta) = \frac{y}{r} = \frac{-2}{2\sqrt{5}} = -\frac{\sqrt{5}}{5}$."

p.762 In Exercise #78(c) the third sentence should start with "At the first sighting ..."

p.851 The answer should be $\sec(\operatorname{arcsec}(117\pi)) = 117\pi$.

p.863 In the fourth line the second answer should be $x = \frac{7\pi}{4}$

p.876 In #57 the answer should include $x = 0$

p.907 The answer to #29 is 371 feet

p.925 In the Solution to part 1(b) the end of the first sentence should be "... $y = -x$ gives $r \sin(\theta) = -r \cos(\theta)$."

p.931 In #5 the third point should be $\left(12, -\frac{19\pi}{6}\right)$

p.934 The answer to #45 is $\left(\frac{3}{5}, \frac{4\pi}{3}\right)$

p.935 The answer to #76 is $r = \sin(\theta)$

p.935 The answer to #96 is $(x^2 + y^2 - y)^2 = x^2 + y^2$

p.1007 The answer to #62 is $(2 + 2i)^5 = -128 - 128i$

p.1021 The denominator of the fraction in the middle of the page should be $175 \cos(50^\circ) + 35 \cos(-30^\circ)$

p.1025 The last bullet in the instruction for Exercises #1 -10 should be $\|\vec{w}\|\hat{v}$

p.1040 The Theorem number in the second sentence should be 11.28 (not 11.9.5)

p.1057 The inequality in #13 should be $0 \leq t < \frac{\pi}{2}$

p.1063 The inequality in #13 should be $0 \leq t < \frac{\pi}{2}$