Errata - The Kurzweil-Henstock Integral for Undergraduates, by Alessandro Fonda

1. page 30, line -2: replace "competed" by "completed".

2. page 35, line 5: replace "e" by "and".

3. page 44, line 10, delete "5."

4. page 46, line -4, replace "0" by $\dfrac{\pi}{4}$.

5. page 55, line 6, replace "a Riemann on" by "a Riemann sum on".

6. page 65, line -3: replace "dDominated" by "Dominated".

7. page 86, line 3, replace "Theorem 2.27" by "Theorem 2.29".

8. page 97, line -1, replace "Corollary 2.22" by "Proposition 2.22".

9. page 104, line -5, replace "epigraph" by "hypograph".

10. page 105, line 6, "x" should be in vector representation.

11. page 110, line 8, write $\times\{0\}))$ instead of $\times\{0\})$.

12. page 112, exercise 1: replace

$$E_{\rm rot} = \left\{(x, y, z) \in \mathbb{R}^3 : (x, \sqrt{y^2 + z^2}\,) \in E\right\}$$

(i.e., the set obtained rotating E around the x-axis)

    by

$$E_{\rm rot} = \left\{(x, y, z) \in \mathbb{R}^3 : (\sqrt{x^2 + z^2}\,, y) \in E\right\}$$

(i.e., the set obtained rotating E around the y-axis).

13. page 122, exercise 3: replace

    "What is its value?"

    by

    "What is its value if $\alpha = 2$?"

14. page 150, exercise 2: replace $\gamma(t) = (t, t^2, t^3)$ by $\gamma(t) = (t, 2t, 3t)$.

15. page 150, exercise 3: replace

$$\left\{(x, y, z) \in \mathbb{R}^3 : \frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1\right\}.$$

    by

$$\left\{(x, y, z) \in \mathbb{R}^3 : x^2 + y^2 + \frac{z^2}{4} = 1\right\}.$$

16. page 150, exercise 4: replace

$$\sigma(u, v) = (u \sin v, v \sin u, \cos(uv))$$

by

$$\sigma(u, v) = (u^2, v^2, u^2 - v^2).$$

17. page 150, exercise 5: replace

$$\mathcal{M} = \{(x, y, z) \in \mathbb{R}^3 : x^2 + 4y^2 + 9z^2 = 1\}$$

by

$$\mathcal{M} = \{(x, y, z) \in \mathbb{R}^3 : z = x^2 + y^2 \leq 1\}.$$

18. page 150, exercise 5: replace

$$f(x, y, z) = xyz$$

by

$$f(x, y, z) = 1 + 4x^2 + 4y^2.$$

19. page 154, line -1, replace β^+ by β_k^+ .

20. page 162, line -5: replace $F(b_1, u_2, u_3)$ by $F(\sigma(b_1, u_2, u_3))$.

21. page 162, line -4: replace $\int_{\beta_1^+}$ by $\int_{\sigma \circ \beta_1^+}$.

22. page 166, exercise 4: replace

"Compute $\int_\sigma \mathrm{div} F \, dx \wedge dy \wedge dz$, both directly and by the use of the Gauss–Ostrogradski formula."

by "Compute $\int_{\partial \sigma} \langle F, d\mathcal{S} \rangle$."

23. page 167, line -8, replace $F((t)$ by $F((t))$.

24. page 171, line -2, replace "$F = \mathrm{div}$" by "$f = \mathrm{div}$" .

25. page 172, line 4, replace

$$\frac{\partial f}{\partial x_1}(tx) + \frac{\partial f}{\partial x_2}(tx) + \frac{\partial f}{\partial x_3}(tx)$$

by

$$\frac{\partial f}{\partial x_1}(tx)x_1 + \frac{\partial f}{\partial x_2}(tx)x_2 + \frac{\partial f}{\partial x_3}(tx)x_3 \,.$$

26. page 182, all "x, h" should be of vector representation.

27. page 184, line 6, "x_0" should be of vector representation.

28. page 189, line -10, replace V_2 by V_N .

29. page 191, line -4, "y_0" should be of vector representation.

30. page 211, line 12, replace Θ_1 by Θ_0 .

31. page 211, line 16, replace Θ_2 by Θ_n .

32. page 217, line 3, replace "Mac Shane" by "McShane".

33. page 219, line 10, replace "Generalized" by "General".