

Errata for *Essential Discrete Mathematics for Computer Science*  
(last update: 15 December 2008)

- p. 5, last column of truth table: 3rd to last row should be f, not t.
- p. 6, line 2:  $(p \wedge q) \wedge (p \vee r)$  should read  $(p \wedge q) \vee (p \wedge r)$
- p. 6, line 4:  $(p \wedge q) \wedge (p \vee r)$  should read  $(p \wedge q) \vee (p \wedge r)$
- p. 6, 2nd bulleted item:  $(p \wedge q) \wedge r$  should read  $(p \wedge q) \wedge r$
- p. 8, next to last word of 2nd paragraph should be “true”
- p. 13, exercise 15: should read 0, 1, 2, . . . , 9
- p. 16, line 19, “ $P(A)$ ” should read “ $\mathcal{P}(A)$ ”
- p.20, line 7:  $A_i = [2, 3 + 1/n)$  should be  $A_i = [2, 3 + 1/i)$
- p. 20, Exercises 2 and 3 should be exchanged to agree with the answer key.
- p. 20, exercise 9 should read: Prove that if  $A \subseteq B$  and  $C \subseteq D$ , then  $A \cup C \subseteq B \cup D$ .
- p. 23, exercise 41:  $1/n$  should be  $1/i$
- p. 23, exercise 48: the total number of elements should be 180, not 200.
- p. 23, exercise 50 should read:  $A \cap B = A \cap C \dots$
- p. 26, value of  $e$  given on fourth line of last paragraph should be 2.7182818. . .
- p. 38, exercise 18f: “relations” should be “relation”.
- p. 38, exercises 23,24 and 25, revise to read: “. . . a relation on  $S = \{x, y, z\}$  that is . . .”.
- p. 39, exercise 32, revise to read: “. . . relation  $R$  on the integers by . . .”.
- p. 39, exercise 33, revise to read: “. . . following functions on the reals . . .”.
- p. 50, logic diagram at top of page should show connection between input  $C$  and the first line it crosses, which leads to a *not* gate and an *and* gate.
- p. 51, first sentence of last paragraph should refer to diagram on the top of page 50, not the bottom of page 49.
- p. 74, next to last sentence of second full paragraph: Second word should be “following.”
- p. 82, prob 6 should read:  $\dots = \frac{1}{2}(3n^2 + 7n)$ .

- p. 84, exercise 19 should be  $\dots b_n = \frac{49}{2}3^{n-1} - \frac{1}{2}\dots$
- p. 99, line -3: replace  $m + n$  with  $m - n$ .
- p. 114, next to last line. The value of  $d$  (listed twice in that line) should be 1710429449.
- p. 115, line 8: The value of  $D$  should be 1710429449.
- p. 117, exercise 17: replace  $\text{lcm}(n, n)$  with  $\text{lcm}(m, n)$ .
- p. 144, exercise 9: Eliminate the parenthesized sentence, since the formula isn't helpful for this problem.
- p. 151, line before reader check box, last sentence should read: Also,  $\binom{n}{1} = n$  and  $\binom{n}{n} = 1$ .
- p.151, reader check box should read: Verify that  $\binom{n}{0} = 1$ ,  $\binom{n}{1} = n$  and  $\binom{n}{n} = 1$ .
- p. 155, the sentence just before the reader check box: This isn't exactly true; the proof is not as straightforward as suggested.
- p. 197, in the line before the second diagram: Should be  $\binom{4}{2} = 6$
- p. 203, line after the display: "... an order ..." should read "... any order ..."
- p.211, chap 3, prob 5: should read:  $\neg r$
- p.212, chap 7, prob 15: should be 5.97, not 5.70
- p. 213, chap 8, prob 13: the numbers 39,916,800 and 64,864,800 should be reversed
- p. 213, chap 8, prob 49: should be .24609, not .2409
- p. 214 chap 9, prob 15: should be NJ.K W