Page 88: The solution for problem 9 on **page 29** in *Cohen*'s 1997 edition is not entirely correct. The smallest number of steps for generating $x^8 + x^4$ is 5. The steps are:
x
xx
xxxx
xxxxxxxx
xxxxxxxx + xxxx

Page 92: The solution for problem 9(ii) on page 49 in *Cohen*'s 1997 edition is incorrect. The regular expression should be $a^*(baa^*)^*(b + \Lambda)$.

5.2 ERRATA IN *Cohen* 1997 edition

Page 56: The transition function should be $*(q_i, x_j) = q_k$ instead of $*(q_i, x_j) = x_k$.

Page 86: This error is indicated on **page 48** of the study guide.

Page 98: On line 5, the word *unless* should be replaced with *useless*.

Page 131: Line 11 reads, "If we are in z_2...". It should read, "If we are in z_4...".

Pages 139 & 140: There are some errors in each of the three examples. If we apply the algorithm correctly, all three resulting FA's are

different from those in the book to a greater or lesser extent.

(i) The first NFA on page 139 does indeed change into the given FA but the edge from state x_4 to the dead-end state should have *a*, *b* as label (not *a* alone).

(ii) The second NFA on page 139 changes to an FA with **four** states:
The state on the right-hand side of the FA in the book should be marked as

$$x_2 \; or \; x_3 \; or + x_1$$

and the label of the loop should be *b* (and not *a, b*). There should be an edge with label *a* from this state to a new state marked

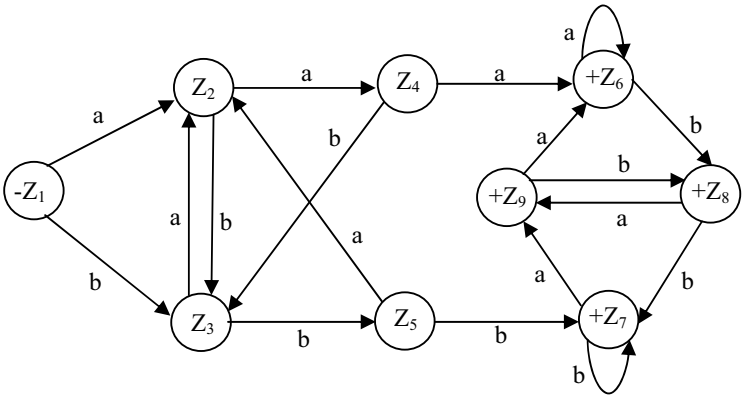
$$x_1 \; or + x_3.$$

At this new state there should be a loop with label an *a* and an edge returning to the (x_2 *or* x_3 *or* $+x_1$) state with label *b*.
Thus, the correct FA has one state more than the FA in the textbook and one of the other three states has a different composition.

(iii) The NFA at the top of page 140 changes to an FA with two states

more than the NFA itself. We obtain the following:

New state	**Old states**	**Read an a**	**Read a b**
-z1	1	z2 = 1 or 2	z3 = 1 or 5
z2	1 or 2	z4 = 1 or 2 or 3	z3 = 1 or 5
z3	1 or 5	z2 = 1 or 2	z5 = 1 or 5 or 6
z4	1 or 2 or 3	+z6 = 1 or 2 or 3 or 4	z3 = 1 or 5
z5	1 or 5 or 6	z2 = 1 or 2	+z7 = 1 or 5 or 6 or 4
+z6	1 or 2 or 3 or 4	+z6 = 1 or 2 or 3 or 4	+z8 = 1 or 5 or 4
+z7	1 or 5 or 6 or 4	+z9 = 1 or 2 or 4	+z7 = 1 or 5 or 6 or 4
+z8	1 or 5 or 4	+z9 = 1 or 2 or 4	+z7 = 1 or 5 or 6 or 4
+z9	1 or 2 or 4	+z6 = 1 or 2 or 3 or 4	+z8 = 1 or 5 or 4



6. ASSIGNMENT QUESTIONS

We summarise the due dates for the four assignments and the scope of each assignment in the following table:

Assignment	Due date	Covers chapters
01 - compulsory	11 April	1, 2, 3 and 4
02	16 May	3, 4, 5 and 6
03	13 June	7 and 8
04	11 July	9, 10 and 11