

## Exercises #2

Greg Plaxton

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These exercises are intended to reinforce the lecture material. Sample solutions will be handed out on February 12. It is recommended that you consider the problems on your own before reading the sample solutions.

1. Exercise 15.4–6, page 397 (second edition, page 356).
2. Exercise 15.5–4, page 404 (second edition, page 363).
3. Exercise 16.4–4, page 443 (second edition, page 398).
4. Problem 16–2(b), page 447 (second edition, page 402).
5. Problem 16–3, parts (a), (b), and (c), page 448 (second edition, page 403). Please note that the last sentence of part (a) is a bit garbled. The intent is for  $(E, \mathcal{I})$  to be defined as follows: Given an undirected graph  $G = (V, E)$ , a subset  $A$  of  $E$  belongs to  $\mathcal{I}$  if and only if the graph  $(V, A)$  is acyclic.
6. Exercise 17.3–6, page 463 (second edition, page 416).
7. Exercise 17.3–7, page 463 (second edition, page 416).
8. Problem 17–3, parts (c), (d), and (e), page 473 (second edition, page 427).
9. Problem 17–5, parts (d), (e), (f), and (g), page 476 (does not appear in the second edition).
10. Exercise 23.1–11, page 630 (second edition, page 567).
11. Exercise 23.2–1, page 637 (second edition, page 573).
12. Problem 23–1, page 638 (second edition, page 575).