

Dalhousie University Faculty of Computer Science
Design and Analysis of Algorithms I
Assignment 3 CSCI 3110 Due: 12 Oct 2012

- (1) Text 1.42
- (2) Consider a tree T with vertices $V = \{a, b, c, d, e, f, g, h, i, j\}$ and, rooted at a with edges $E = \{(a, b), (b, d), (d, e), (a, c), (c, f), (c, g), (g, h), (g, i), (g, j)\}$.
 - (a) Find the (undirected) connected graph with the maximum number of edges that has T as its DFS-tree (explain your answer).
 - (b) Find the (undirected) connected graph with the maximum number of edges that has T as its BFS-tree (explain your answer).
- (3) Text 3.2(b)
- (4) Text 3.5
- (5) Text 3.6