

Self-study session 3, Discrete mathematics

First year mathematics for the technology and science programmes
Aalborg University

Read section 11.2 (only pp. 726–733 and Figure 6 on p. 734) in Rosen’s book about binary search trees, decision trees and Huffman coding.

Solve the following exercises from section 11.2:

1, 4, 5, 13, 15, 17, 19.

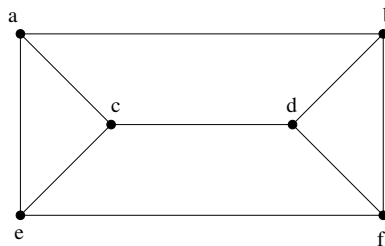
Read section 11.4 (only pp. 755–761) in Rosen’s book about depth-first search, breath-first search and backtracking.

Solve the following exercises from section 11.4:

9, 10, 17, 18, 19.

And also the following continuation of exercise 19:

Opgave A: Use backtracking to find *all* Hamilton paths, starting in **a**, in the following graph:



How many Hamilton paths starts in **a** ?

Determine the number of Hamilton circuits in this graph.