

## Problem Solving and Search in AI Tutorial 8 (on June 25th)

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### **Exercise 8.1**

Consider the constraint graph  $G$  of Exercise 1.1 (the crossword puzzle). Compute the tree-decomposition of  $G$  using the elimination ordering of the min-fill heuristic. Develop a program that performs the computation for any crossword puzzle.

Answer the following questions:

1. What is the width of the particular tree-decomposition?
2. How big is the search space of  $G$ ?
3. How big is the search space for the tree-decomposition?