

Optimization Problem is a tuple  $(\phi, \omega, f)$ , where

- $\phi$  is a search space consisting of all possible assignments of discrete variables  $x_i$ , with  $i = 1, \dots, n$
- $\omega$  is a set of constraints for the decision variables
- $f : \phi \rightarrow R$  is an objective function which has to be optimized

TSP and QAP description. Solution components. Feasible solution.