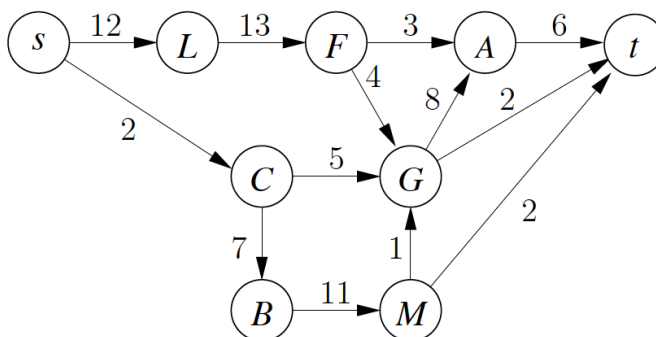


Lecture At the lecture we will talk more about network flows. We will talk about Edmond-Karps algorithm and matchings in bipartite graphs. You should read CLRS chapter 26.2-26.3.

Exercises

Ford-Fulkersons algorithm Compute a maximum flow and minimum cut on graph below.



CLRS Solve CLRS 26.1-6, 26.1-7, 26.2-2, 26.2-11.

Implementation of maximum flow [CJ] Implement a program that given a flow network calculates the maximum flow between two given nodes using the Ford-Fulkerson algorithm.

Puzzle of the week: Four Coins You have to win a game against the hangman. Before the game starts you are blindfolded. There are four coins placed on a square table, one coin at each corner. The initial configuration of the coins is chosen by the hangman, arbitrarily and unknown to you. Your goal is to have all four coins heads up. In each move you can select any subsets of the four coins, which are then flipped simultaneously by the hangman. After your move, if all four coins are heads up, you win. If not, the hangman may rotate the table by an amount of his choice (90, 180, 270, or 360 degrees). If you don't manage to have all four coins heads up in 20 moves or less, you lose and the hangman executes his job. What's your strategy?

Mandatory: The Escape Problem Hand-in CLRS problem 26-1.