BRUNO BORGES DE SOUZA

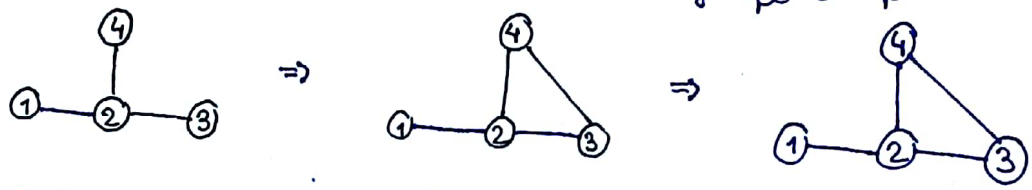
LISTA 2

Exercício 6.1

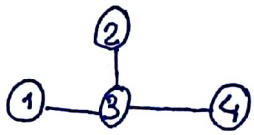
• Vejamos a definição 6.9 (Perfect Elimination Order)

Let the n variables in a Markov network be ordered from 1 to n. The ordering is perfect if, for each node i, the neighbours of i that are later in the ordering, and i itself, form a (maximal) clique. This means that when we eliminate the variables in sequence from 1 to n, no additional links are induced in the remaining marginal graph.

• Fazendo a eliminação das variáveis no grafo do problema, chegamos a:



Ao eliminar a variável (2), criamos um link entre (3) e (4), e portanto contradiz com a definição 6.9

• Uma "Perfect Elimination Order" seria 

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Neste caso: