

Getting Started

slnwong

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1 Environments

Definition 1.1

This is a definition. Usually we have some *vocab* as well.

Definition 1.2 (Defn)

For shorthand, we can use ‘defn’. We can also name the environment.

Theorem 1.3

This is a theorem, or ‘thm’ for short.

Proposition 1.4

This is a proposition, or ‘prop’ for short.

Lemma 1.5

This is a lemma, or ‘lem’ for short.

Corollary 1.6

This is a corollary, or ‘col’ for short.

Example 1.1

This is an example.

Note.

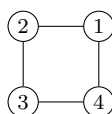
This is a note.

Note (Named Note).

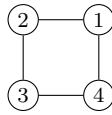
Notes can have names too!

2 Tikz

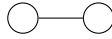
Here is a simple graph with ‘vertex’ nodes.



We can also omit naming the nodes, in which case they are implicitly named $1, 2, \dots, n$.



We can omit labels for any node. We can also use ‘bvertex’ if we just want a black dot without labels, or nothing for just an unstyled node with a label

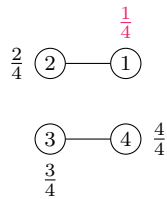


a b

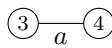
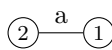
We can style (decorate) the edges, e.g. with zigzag lines. We can also just simply color them.



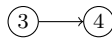
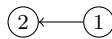
We can put labels outside of the node as well.



We can also put labels on edges.



Arcs.



3 Math

Here is an optimization problem.

$$\begin{array}{ll} \min & w^T x \\ \text{s.t.} & x(\delta(\bar{v})) - x(\delta(v)) = b_v \quad \forall v \in N \\ & x \geq \mathbf{0} \end{array} \quad (P)$$

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vocab, [2](#)