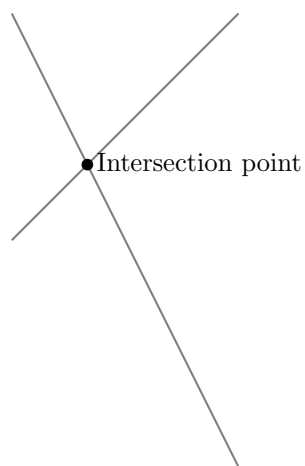


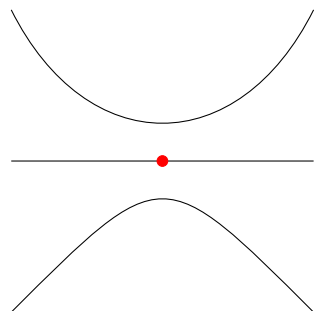
TCS gallery of TikZ figures

Goran Zuzic

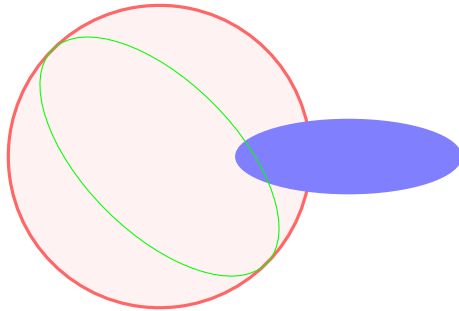
1 Lines and Labels



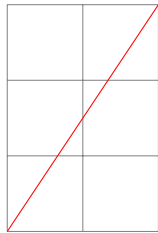
2 Points, Lines, Paths



3 Shapes



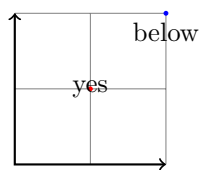
4 Grid Lines



5 Pictures in Text

wherever  you want

6 Labels in Pictures

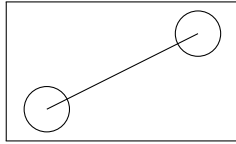


7 Style

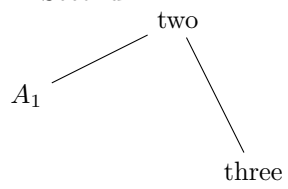


8 Graph

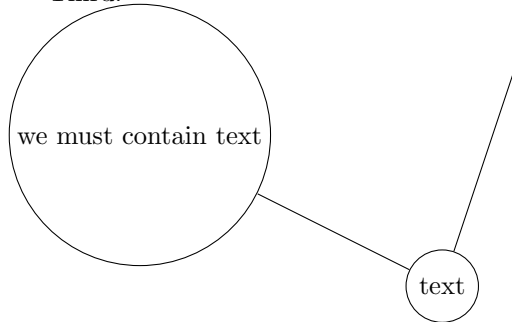
Simplest:



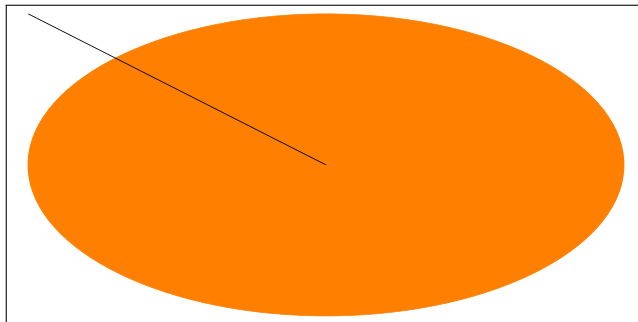
Second:

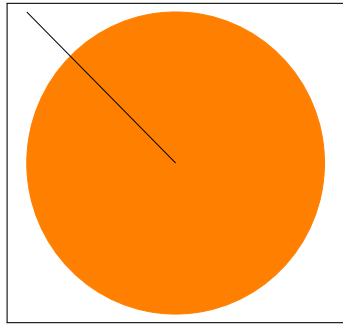


Third:

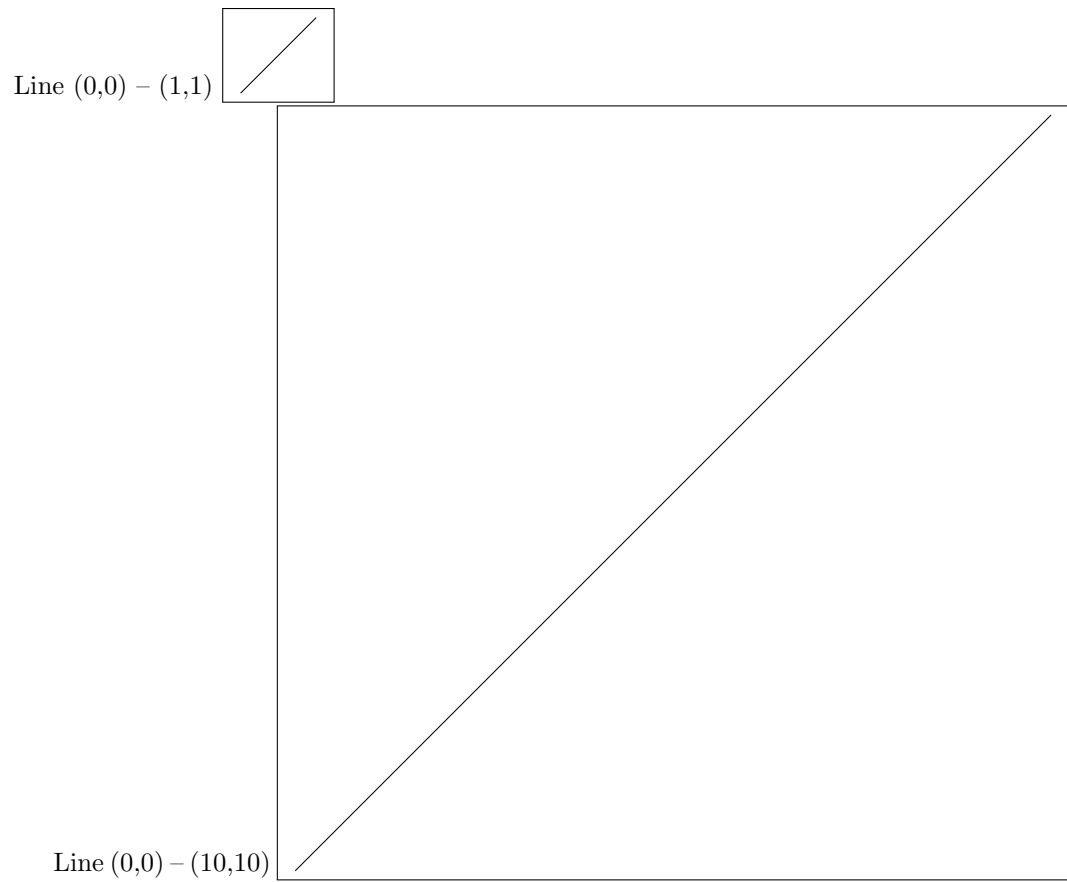


9 Dimensions

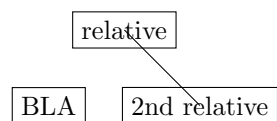




10 Max Dimension

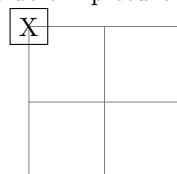


11 Relative Coordinates



12 Arrays (from pgfmath I believe)

Inside tikzpicture:



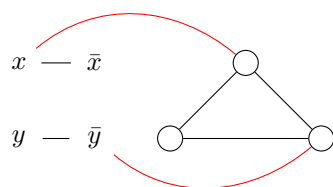
Outside:

Array value: 3

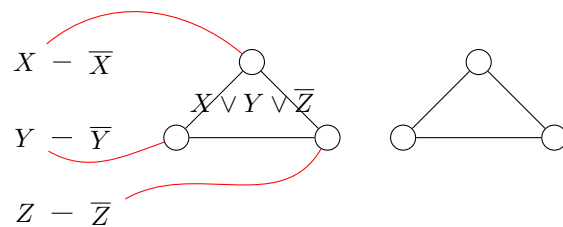
Array value: 1

Computation value: 5.0

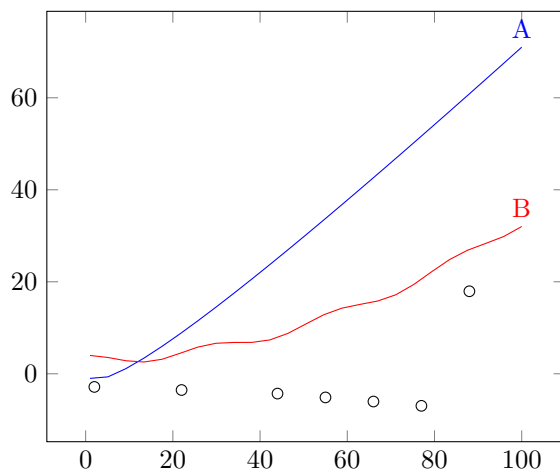
13 Vertex Cover is NP-hard



14 Better: Vertex Cover is NP-hard

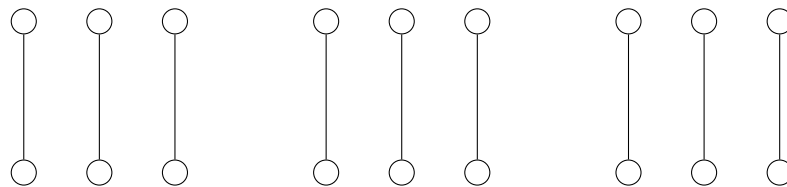


15 Plots

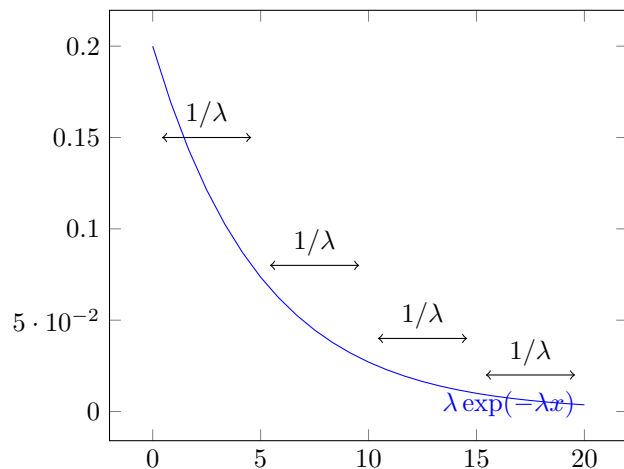


Include pgfplots.

16 For Loops

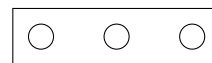
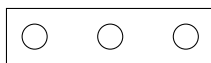
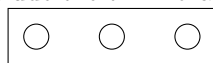


17 Graph With Markings



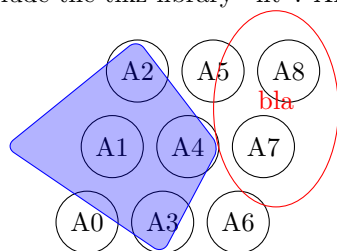
18 Rectangle Around Nodes

Include the tikz library “fit”.

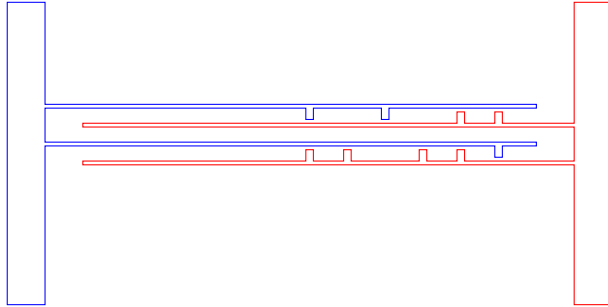


19 Oval Around Nodes

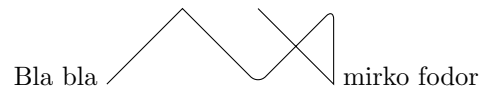
Include the tikz library “fit”. Also include “shapes” for ellipse nodes.



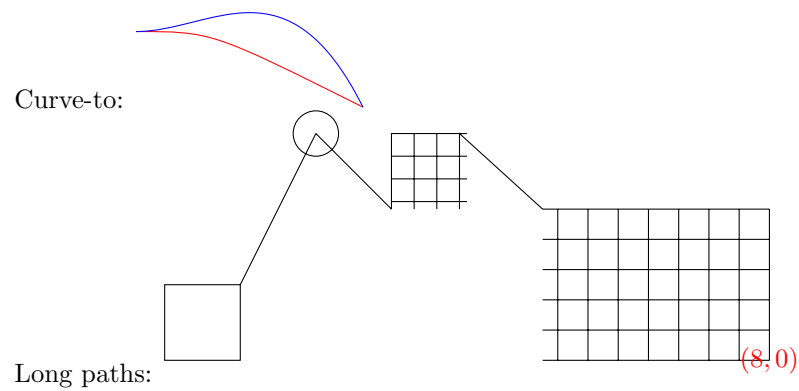
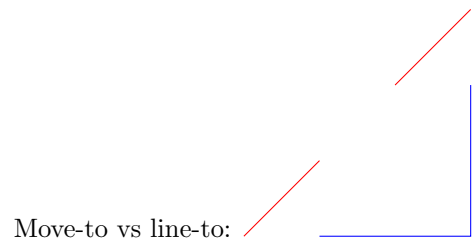
20 Polygon



21 Inline TikZ

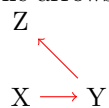


22 Specifying a path

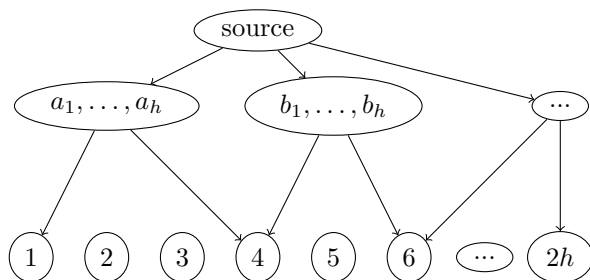


23 Directed Edges

Zoom in to see the arrows!

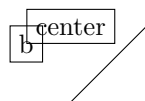


24 Manual Directed Simple Graphs



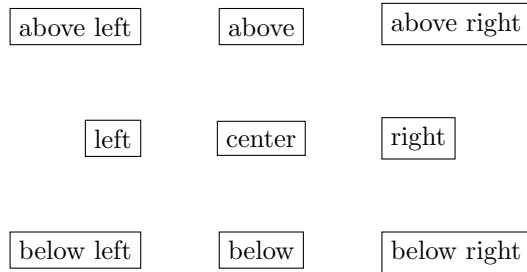
25 Coordinate specification

Use the “calc” library for one of these lines.



26 Node Relative Positioning

Include tikz library “positioning”.

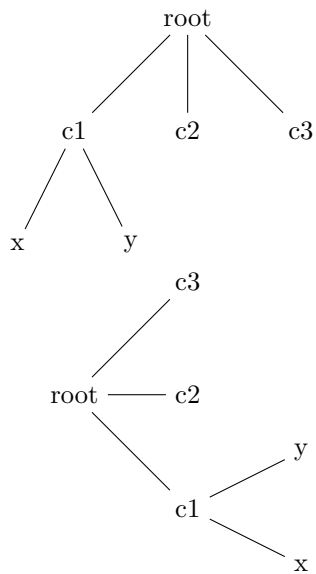


27 Label Relative Positioning

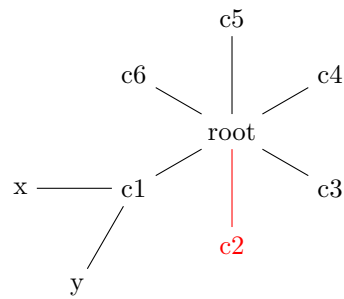


28 Random with Seeds

29 Simple Trees

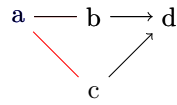


Include “trees” library for this:

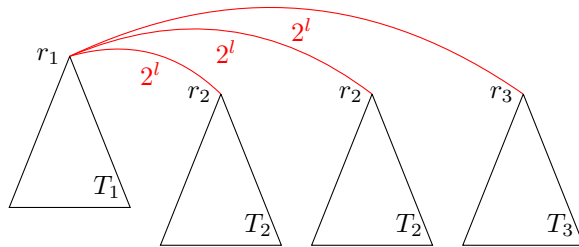


30 Simple Graphs using the Graphs library

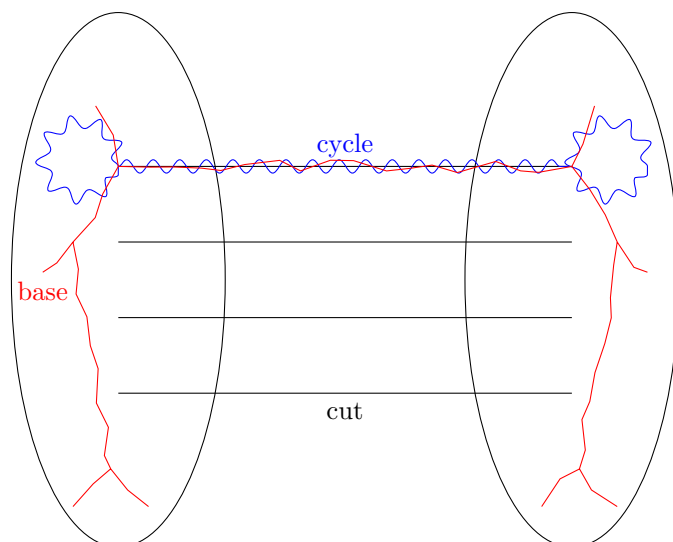
Include the “graphs” library.



31 Using Macros

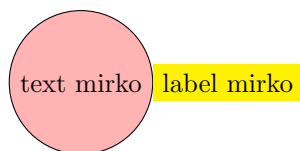


32 Bipartite graph (+decorations, +ifnum)



33 TikZStyle

label slavko
text slavko



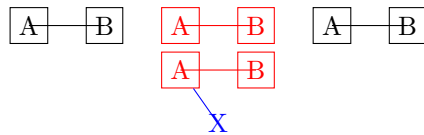
34 Highlighting in a matrix

$$M = \begin{pmatrix} \begin{matrix} 1 & 2 & 3 \\ 6 & 7 & 8 \\ 11 & 12 & 13 \\ 16 & 17 & 18 \end{matrix} & 4 & 5 \\ 9 & 10 & 14 & 15 \end{pmatrix} \xrightarrow{\text{Transpose}} M^T = \begin{pmatrix} \begin{matrix} 1 & 6 & 11 \\ 2 & 7 & 12 \\ 3 & 8 & 13 \end{matrix} & 16 \\ 4 & 9 & 14 & 19 \\ 5 & 10 & 15 & 20 \end{pmatrix}$$

35 Pic

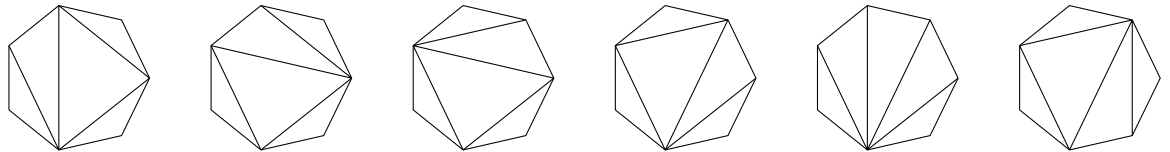


36 Tikz Matrix



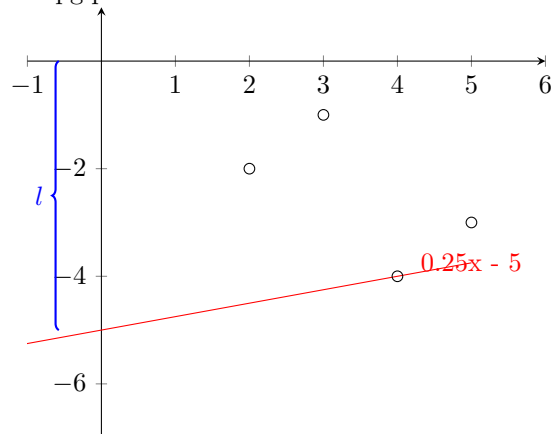
37 Using Matrices (Probably delete this?)

Matrices are like little pictures.



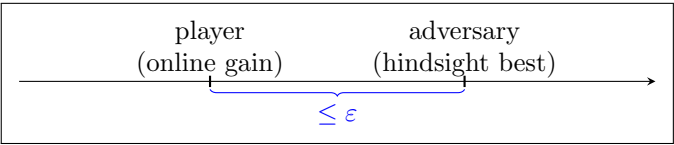
38 Legendre-Fenchel Dual

Include pgfplots.



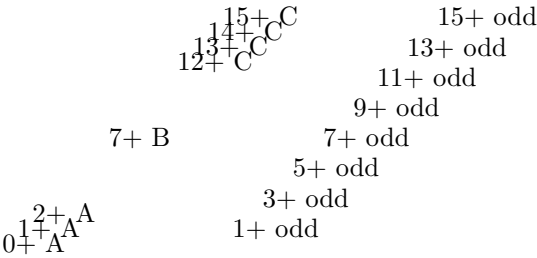
39 One Dimensional Plot

Include pgfplots.

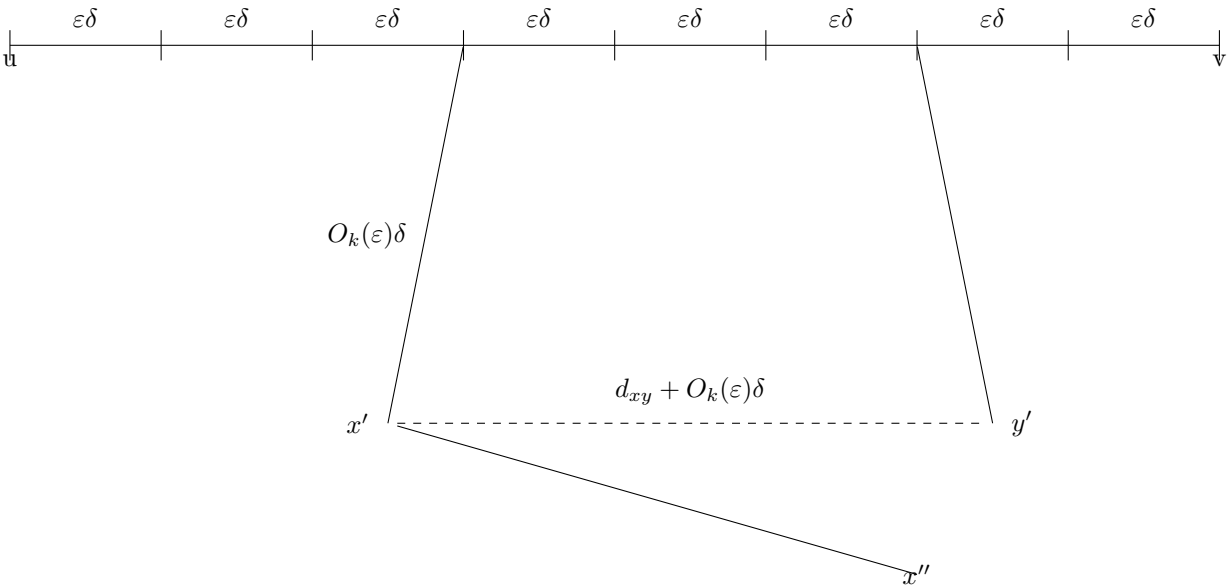


40 IfThenElse

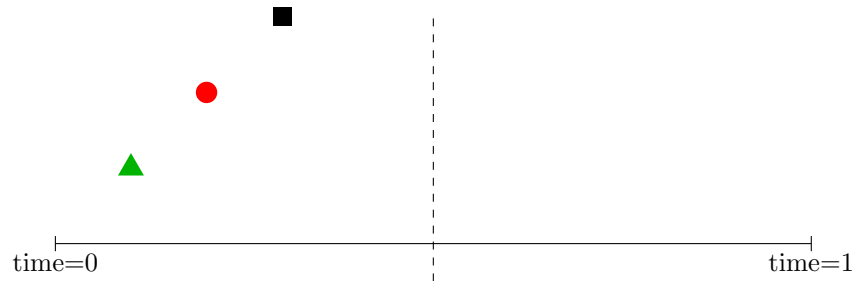
Include Latex package ifthen.
 List of atomic propositions: `num<num`, `num<num`, `num=num`, `\isodd`, `\equal{str}{str}`, etc. .
 Connectives: `\AND`, `\OR`, `\NOT`.



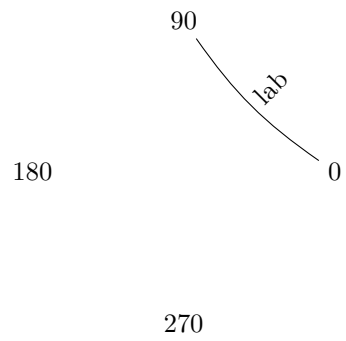
41 Hopset



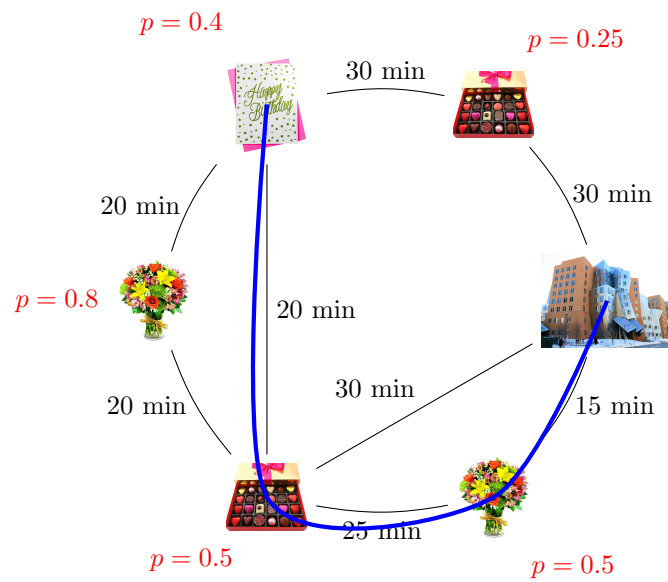
42 Secretary



43 Simple radial graph

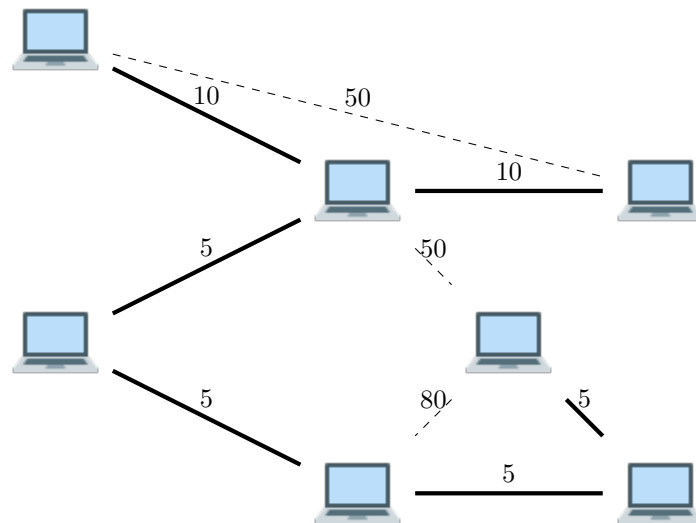


44 Complicated radial graph



45 Graphs manually

Copy the icon.



46 Math in for loops

Include `usetikzlibrary math`.

