

HOMEWORK #3, MATH 441, FALL 2017

JOEL FRIEDMAN

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Please note:

- (1) You may work together on homework, but you must write up your own solutions individually. In particular, you must write your own code, spreadsheets, etc.
- (2) You must acknowledge with whom you worked (specify their `gradescope.com` email addresses). You must also acknowledge any sources you have used beyond the textbook and class material.
- (3) When you submit your homework to `gradescope.com`, you need to put the solutions to different problems on different pages; `gradescope.com` will ask you to identify which pages correspond to which problems.

(1)

Solution: Gurobi found $x_1 = 0$, $x_2 = 4.1$, $x_3 = 3.7$, $x_4 = 9.1$, $x_5 = 9.3$, $x_6 = 11.5$ as an optimal solution. The code and solution is in a separate file.

(2)

Solution: Gurobi found $y_{12} = y_{24} = y_{25} = y_{46} = 0$, $y_{13} = y_{35} = y_{56} = 1$ as an optimal solution. This gives the path $1 \rightarrow 3 \rightarrow 5 \rightarrow 6$ as a maximum path in the graph, whose edge weights sum to $3.7 + 5.6 + 2.2 = 11.5$.

DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, BC V6T 1Z4, CANADA, AND DEPARTMENT OF MATHEMATICS, UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, BC V6T 1Z2, CANADA.

E-mail address: `jf@cs.ubc.ca` or `jf@math.ubc.ca`

URL: <http://www.math.ubc.ca/~jf>

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