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| Name: | Date: | Period: |
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Lab05: A-Star Search

- What is the optimal path cost from Pitesti to Oradea? Run both a Uniform Cost and an A-Star Search.
- Consider the size of the queue to be the number of paths in the queue. If `queue` is a list of paths in Python then we can calculate this with `size=len(queue)`. Using this definition, what is the size of the queue at each step of the above searches?

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| Step | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| U.C. | | | | | | | | | | | | | | |
| A* | | | | | | | | | | | | | | |

- Now consider the size of the queue to be the number of total nodes instead. If `queue` is still a list of paths and each path is a flat (possibly heterogeneous) list then we can calculate roughly this size using `size=sum([len(p) for p in queue])`. Using this definition, what is the size of the queue at each step?

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| Step | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| U.C. | | | | | | | | | | | | | | |
| A* | | | | | | | | | | | | | | |

- Run just an A-Star from Giurgiu to Neamt. Print out the city at the end of each path that comes out of the queue. Write down these cities in order.

Official Use Only

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| Header: | Name | Correct Date | Program Description |
| Style: | Comments | Variable Names | Modular |
| Data Structures: | Obvious | General | Lean |
| Algorithm: | Clear | Correct | Efficient |
| Scoring: | Raw _____ | Late _____ | Total _____ |