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| Mathematics Department | |  |
| Course: ATMAA | |
| Topic Title: Graphs and Networks Take Home Section | |
| Investigation 2  Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_ | | |
| Special Instructions: You may find it useful to use chapter 5 of your textbook and the internet to help with your task preparation. | Time Allowed: 1 Week | | |
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To prepare for the in-class component of this investigation create two pages of notes which describe the following terms as they apply to networks and which provide information to complete the set tasks.

**Terminology**

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| graph | node | vertex | edge |
| face | planar | simple | trail |
| cycle | shortest path | loop | multiple edge |

**Tasks**

* Apply Euler’s formula to identify a planar graph
* Identify a Hamiltonian path or cycle
* Identify a Eulerian trail