**End-of-Class Exercises: Network Models, Integer and Nonlinear Programming**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Step 1:** Set up the Shorted Path for Messaging model in Excel to answer:  
Is it possible to send a message from *Node 42* to *Node 9* within 5 steps?

|  |
| --- |
|  |
| … |
|  |

**Step 2:** Specify Solver.

Set Objective: \_\_\_\_\_\_\_\_\_

To: ○ Max ○ Min ○ Value of: \_\_\_\_\_\_\_\_\_

By Changing Variable Cells: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Subject to the Constraints:

|  |
| --- |
|  |

□ Make Unconstrained Variables Non-Negative

Select a Solving Method: \_\_\_\_\_\_\_\_\_\_\_\_

**Step 3:** Report results.

Is it possible to send a message from *Node 42* to *Node 9* within 5 steps? If yes, provide a feasible route. If no, what’s the minimum number of steps to send the message and what’s the shortest path?