

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

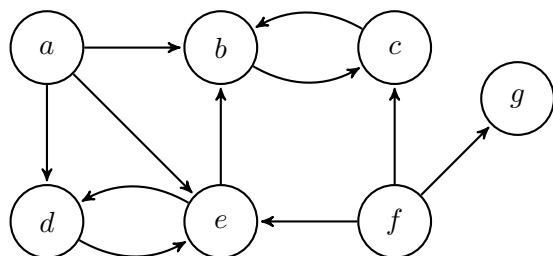
CSSE/MA 473 Worksheet for Class #6  
December 6, 2022

## Exhaustive search

1. Define *exhaustive search*.
2. Exhaustive search is a natural strategy for what types of problems?
3. How many elements of the problem domain must be generated in an exhaustive search for each of the following problems?
  - (a) Traveling Salesman Problem on  $n$  cities
  - (b) Knapsack problem with  $n$  items
  - (c) Assignment problem given  $n$  people and  $n$  jobs along with the  $n \times n$  cost matrix

## Graph Representations

4. Give the adjacency matrix representation of the following graph.



5. Give the adjacency list representation of the following graph.

