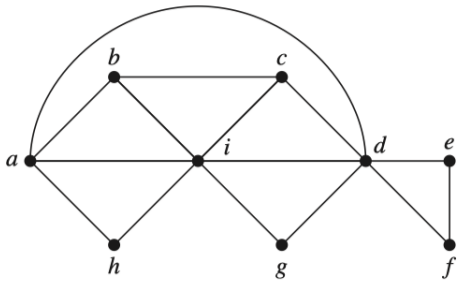
Exercise Sheet 19

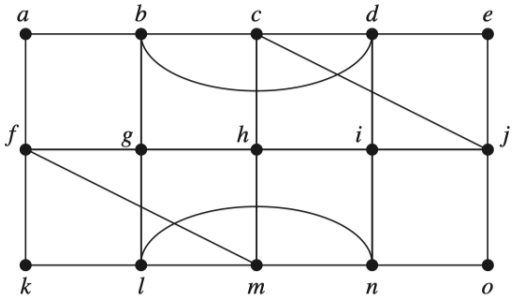
Discrete Mathematics, 2021.12.9

1. ([R], Page 704, Exercise 6, 8) In Exercises 6,8 determine whether the given graph has an Euler circuit. Construct such a circuit when one exists. If no Euler circuit exists, determine whether the graph has an Euler path and construct such a path if one exists.

6.

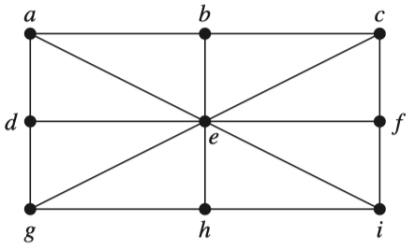


8.



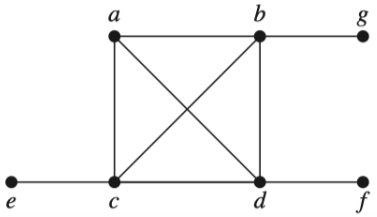
2. ([R], Page 705, Exercise 36) In Exercises 36 determine whether the given graph has a Hamilton circuit. If it does, find such a circuit. If it does not, give an argument to show why no such circuit exists.

36.



3. ([R], Page 705, Exercise 40) Does the graph in Exercise 33 have a Hamilton path? If so, find such a path. If it does not, give an argument to show why no such path exists.

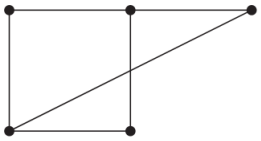
33.



4. ([R], Page 706, Exercise 55) Show that a bipartite graph with an odd number of vertices does not have a Hamilton circuit.

5. ([R], Page 725, Exercise 2, 4) In Exercises 2–4 draw the given planar graph without any crossings.

2.



4.