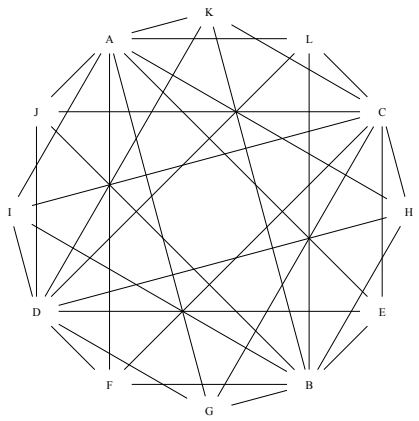
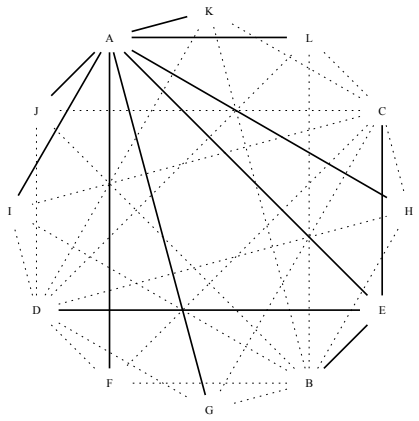
MAU22C00 Assignment 7, Due Friday 17 November 2023
Solutions

1. Find an Eulerian circuit in the accompanying graph.



Solution: There are many different possible answers. One is AEBFAGBHAIBJAKALCLDKCJDICHDGCFCEA.

2. Find a spanning tree in the graph from the preceding problem:
Solution: There are many different possible answers. One is



3. What are the different "products" of the list (v, w, x, y, z) with an associative operation f?

Solution:

(a) $f(f(f(f(v,w),x),y),z)$
(b) $f(f(f(v,f(w,x)),y),z)$
(c) $f(f(f(v,w),f(x,y)),z)$
(d) $f(f(f(v,w),x),f(y,z))$
(e) $f(f(v,f(f(w,x),y)),z)$
(f) $f(f(v,f(w,f(x,y))),z)$
(g) $f(f(v,f(w,x)),f(y,z))$
(h) $f(f(v,w),f(f(x,y),z))$
(i) $f(f(v,w),f(x,f(y,z)))$
(j) $f(v,f(f(f(w,x),y),z))$
(k) $f(v,f(f(w,f(x,y)),z))$
(l) $f(v,f(f(w,x),f(y,z)))$
(m) $f(v,f(w,f(f(x,y),z)))$
(n) $f(v,f(w,f(x,f(y,z))))$