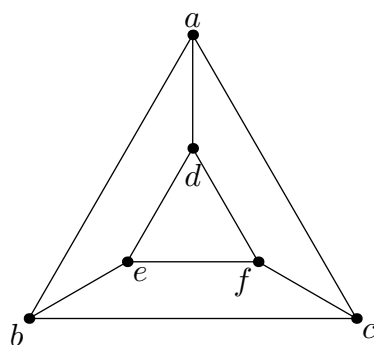


Course 2BA1: Hilary Term 2003.

Assignment III.

To be handed in by Friday 17th January, 2003.

Please include both name and student number on any work handed in.



1. Answer the following questions concerning the graph with vertices a, b, c, d, e and f pictured above. [Justify all your answers.]
 - (a) Is the graph complete?
 - (b) Is the graph regular?
 - (c) Is the graph connected?
 - (d) Does the graph have an Eulerian circuit?
 - (e) Does the graph have a Hamiltonian circuit?
 - (f) Give an example of a spanning tree for the graph, specifying the vertices and edges of the spanning tree.
 - (g) Given an example of an isomorphism between the graph pictured above and that pictured below. (You should specify the isomorphism as a function between the sets $\{a, b, c, d, e, f\}$ and $\{u, v, w, x, y, z\}$ of vertices of the two graphs.)

