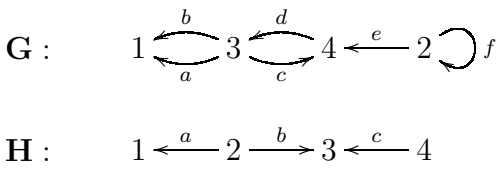
INF223 Categories for Software Engineering
Spring 2006

— Exercise Set 1 , for group meeting 27.01.2006 —

1. Give a formal description of the first diagram in 2.1.3 on page 16 and of the diagram in 2.1.4 on page 17 according to Definition 2.1.1.

2. Consider the following graphs



   Find all graph homomorphisms from H into G. Explain why there is no graph homomorphisms from G into H.

3. Find two graphs G and H such that there exists neither a graph homomorphisms from G into H nor from H into G.