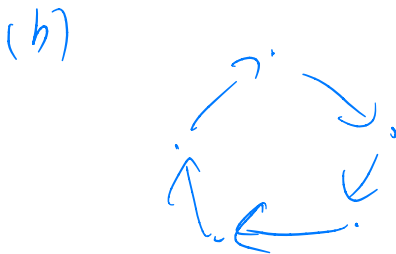
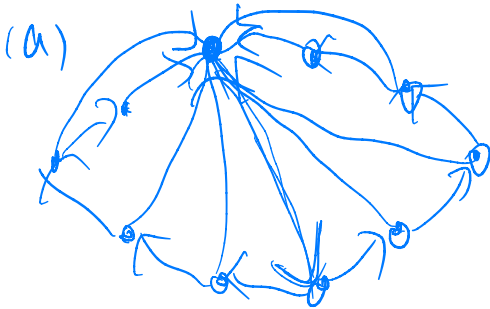


**Figure 1** A 4-chicken tournament in which chickens  $a$ ,  $b$ , and  $d$  are kings.

The King Chicken Theorem means that if the player with the most victories is defeated by another player  $x$ , then at least he/she defeats some third player that defeats  $x$ . In this sense, the player with the most victories has some sort of bragging rights over every other player. Unfortunately, as Figure 1 illustrates, there can be many other players with such bragging rights, even some with fewer victories.



(c)

$u$  with largest out degree

$$\forall v \in E(G)$$

case 1:  $u \rightarrow v$  done

case 2:  $v \rightarrow u$

$$W = \{w_1, \dots, w_i \mid u \rightarrow w_j\}$$

if all  $w_j \in W$   $v \rightarrow w_j$

contradict

$$\exists w_j \rightarrow v$$

QED