- 1. Q Alice and Bob are discussing a graph that has 17 vertices and 129 edges. Bob argues that the graph is Hamiltonian, while Alice says that he's wrong. Without knowing anything more about the graph, must one of them be right? If so, who and why, and if not, why not?
 - ${\bf A}$ Without knowing if the graph is connected it is hard to say if the graph is Hamiltonian.