Peer-to-peer networks – (due till May 20, 2009)

Exercise 10.1: Bubblestorm

a) A node with high bandwidth has to store

O more data
O less data
O on average as much as the other nodes

Explain how you come to this conclusion.

b) What is a bubble?

c) How does the creation of the network differ from the creation of a bubble?

d) What is the split factor in Bubblestorm?

e) Is it possible that a nodes gets multiple copies and if yes, when does that happen resp. why is it impossible?

f) The authors of Bubblestorm claim that leave nodes of a bubble are only located on level n or (n-1).
So the difference of the levels of leave nodes never deviates by more than one. Explain why this
holds true.