HW problem:

Four students, Anna (A), Bill (B), Clara (C), and Dan (D), have each created a homepage, and each homepage contains links to some of the other students. In particular, Anna has a hyperlink to Bill, Clara, and Dan. Bill has a hyperlink to Anna and Dan, Clara has a hyperlink to Dan and Bill, and Dan has a hyperlink to Anna and to himself.

a) Draw the graph of 4 nodes.

b) Using the Pagerank approach on this graph of 4 nodes, write down the system of 4 equations for the significance of each page, that is, the equations defining \( s(A) \), \( s(B) \), \( s(C) \), \( s(D) \). Whose page do you think will have the highest significance value?

c) Suppose Dan removes the link to himself. Do you think this will increase or decrease his page's significance?