Question:

Use PageRank to find the most important papers on "pagerank":

P1: "…pagerank…":	P2: "…"	P3: "…pagerank…"	P4: "…"
• P2 • P4	• P4	• P4	• P2

Answer:

Step 1: form graph
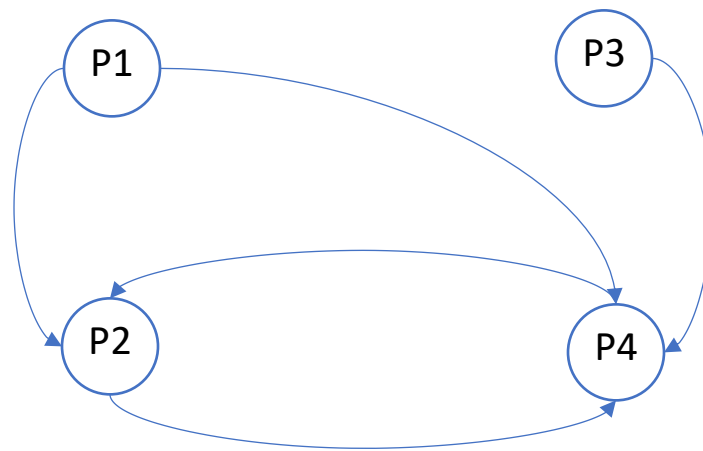
Step 2: form pagerank formula

Since the question asks for important papers on **"pagerank"**, we can give papers (P1, P3) that have the keyword "pagerank" higher weights. To do so, we can modify pagerank formula by putting only P1, P3 into the base set E.

Here is the final customized formula:

$PR(P1) = (1 - d) * 1/2 + d * 0$ (in the base set, no incoming link)

$PR(P2) = (1 - d) * 0 \quad + d * (PR(P1) / 2 + PR(P4) / 1)$

$PR(P3) = (1 - d) * 1/2 + d * 0$ (in the base set, no incoming link)

$PR(P4) = (1 - d) * 0 \quad + d * (PR(P1) / 2 + PR(P2) / 1 + PR(P3) / 1)$

The rest is just calculation …