Consider the following web pages and the set of web pages they link to:
    Page A points to pages B, C, and E.
    Page D points to pages B and C.

Run the Hubs and Authorities algorithms on this subgraph of pages. Show the authority and hub scores for each page for each iteration. Do not include a normalization step. Order the elements in the vectors in the order D,A,C,B,E.

Resolve the same problem including normalization at each iteration.


Solution: without normalization

| | In | Out | Iteration 0 | | Iteration 1 | | Iteration 2 | |
|---|---|---|---|---|---|---|---|---|
| | | | a | h | a | h | a | h |
| D | - | B,C | 1 | 1 | 0 | 2 | 0 | 4 |
| A | - | B,C,E | 1 | 1 | 0 | 3 | 0 | 5 |
| C | A,D | - | 1 | 1 | 2 | 0 | 5 | 0 |
| B | A,D | - | 1 | 1 | 2 | 0 | 5 | 0 |
| E | A | - | 1 | 1 | 1 | 0 | 3 | 0 |