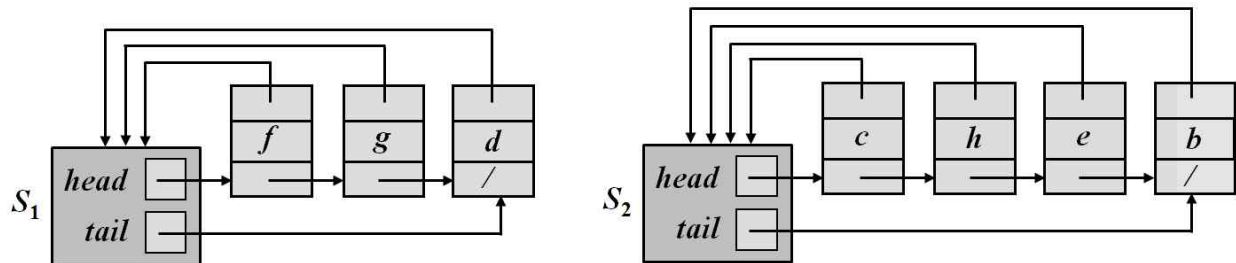
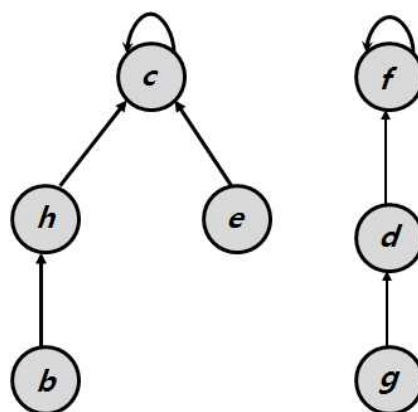


Review 12

1. Show the result of $\text{UNION}(g, e)$ of the following Set S_1 and S_2 by the weighted-union heuristic.



2. Show the result of $\text{UNION}(e, g)$ of the following two trees where the union-by-rank heuristic is used and the rank of *c* is smaller than the rank of the *f*.



3. Show the shape of the tree after path compression followed by $\text{FIND-SET}(a)$.

