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1 Metagraph_Traversal_With_Rules(DB, SV, RME, RE)
2   MG  $\leftarrow$  INIT(DB)
3   MG.ME  $\leftarrow$  Apply_Rules(MG.ME, RME)
4   queue  $\leftarrow$   $\emptyset$ 
5   visited  $\leftarrow$   $\emptyset$ 
6   for each v in SV
7       do Enqueue(queue, v)
8   while queue  $\neq$   $\emptyset$ 
9       do cur_v  $\leftarrow$  Dequeue(queue)
10          Add(visited, cur_v)
11          Add(MG.V, cur_v)
12          incident_edges  $\leftarrow$  Incident(DB, cur_v)
13          new_incident_edges  $\leftarrow$  Apply_Rules(incident_edges, RE)
14          Extend(MG.E, new_incident_edges)
15          for each u in Adjacent(MG, cur_v)
16              do if u  $\notin$  visited
17                  then Enqueue(queue, u)
18   return visited
```