Script 8.3.1 (Traversal of a multigraph)
algorithm TRAVERSAL $((N, A, f) : multigraph)$ {
    $CTM :=$ identity matrix;
    TraverseNode $(root)$
}

proc TRAVERSENODE $(n : node)$ {
    foreach $a \in A$ outgoing from n **do** TraverseArc (a);
    ProcessNode (n)
}

proc TRAVERSEARC $(a = (n, m) : arc)$ {
    Stack.push (CTM);
    $CTM := CTM$ * a.mat;
    TraverseNode (m);
    $CTM :=$ Stack.pop()
}

proc PROCESSNODE $(n : node)$ {
    foreach object $\in n$ **do** Process(CTM * object)
}