Weighted Interval Scheduling: The Table $M$ as a Graph.

For the previous example (sorted by $f_j$), suppose the weights $v_j$ are as given on the vertical edges below (all other edges have weight zero).

Find the longest path from vertex $t$ to $s$.

Recall: $M[j] = \max(v_j + M[p(j)], M[j-1])$, green/red indicates which case.

Question: Do we know yet if the first job, say, with $(s_1, f_1)$ and value $v_1$, is in the computed optimal solution $S(n)$? (Soln: Jobs $\{7, 3\}$, total value 12.)