

This is the DAG scheduling problem, which is NPC [2, 1].
we can use bitmask DP.

Remark. the test cases are weak, and many of the “polynomial time” algorithms in the discussion forum are incorrect.

References

- [1] Yu-Kwong Kwok and Ishfaq Ahmad. Static scheduling algorithms for allocating directed task graphs to multiprocessors. *ACM Computing Surveys (CSUR)*, 31(4):406–471, 1999.
- [2] Jeffrey D. Ullman. Np-complete scheduling problems. *Journal of Computer and System sciences*, 10(3):384–393, 1975.