Reminder: You may work in groups and use outside sources. But, you must write up solutions in your own words and properly reference your sources for each problem. This includes listing your collaborators and properly citing any sources you use. Solutions to each problem must be electronically typeset in separate documents and submitted online via Canvas.

Problem 6-1.  *Kleinberg & Tardos* Chapter 8, Problem 3.

*Hint:* Reduce from one of the graph problems we know to be NP-complete.


*Hint:* Reduce from Subset-Sums. You are given an arbitrary instance of subset-sums \((X, t)\) and you want to construct an instance of number partition \(S\) such that you can partition \(S\) into two equal partitions iff there is a subset of \(X\) which sums up to \(t\). Note that you have no choice on \(X\) or \(t\), but you can construct \(S\) however you want. Another hint: you will have to add a couple of numbers of \(X\) to get \(S\).