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**Lecturcises 07 (due Saturday, November 18th @ 11:30pm)**

**Directions:** *These problems were presented within the last week as “exercises” in lecture. During lecture, you were able to collaborate with students, TAs, and Prof. Blank. Your task now is to write up solutions to these problems **without discussing them with anyone**. You should submit the lecturcise below on Gradescope. Note that your submissions will be graded on correctness, not effort.*

**Bipartite Coloring**

Prove that a graph is bipartite if and only if it is 2-colorable.

**This is a theorem in Definitions and Theorems, but you may not cite it in this lecturcise.**