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## Problem 1 LP scenarios

[DPV] Problem 7.7 (find necessary+sufficient conditions for 3 cases) Do part (b) using the dual LP Hint: for some parts, a possible answer is that it never holds. Solution:

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## Problem 2 ILP

Show how to reduce Vertex Cover to integer programming. An integer program is a linear program with the additional constraint that the variables must take only integer values.

Solution: