

**Question Number 9**

You know that the best 4-round differential characteristic for Sypher004 has 4 active Sbox-es. This can also be verified using **Gurobi**. What constraint should you add to your set of constraints for Gurobi so that it reports more than 4 active Sbox-es in its solution? Verify this and submit your **.lp** and **.sol** files.

Solution.