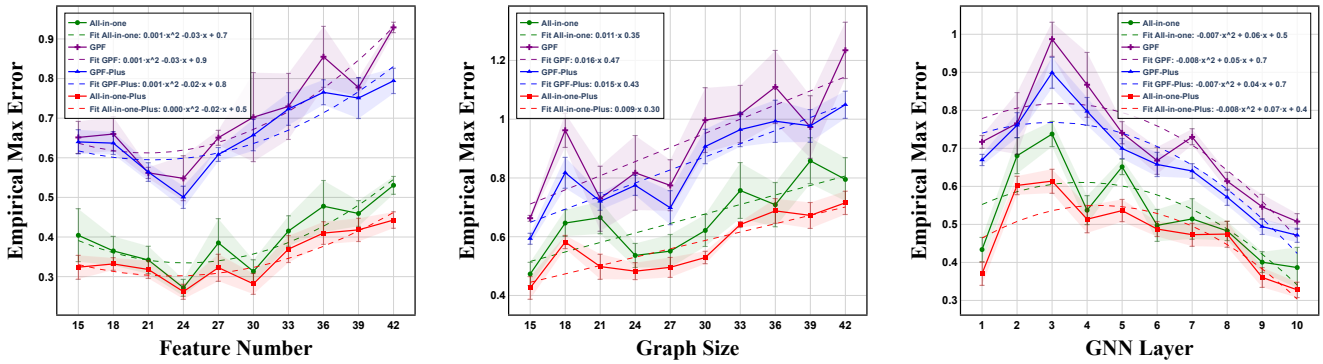
# Supplementary Experiments

## For experiments in section 5.3

We implement supplementary experiments of Section 5.3 using GPF-plus, GPF, All-in-one, and All-in-one-plus. The results are shown in the figure below. It can be clearly observed that, consistent with our intuition, neither GPF-plus nor All-in-one-plus fundamentally changes the design of prompt on a single graph. By increasing the number of parameters and expanding the search space, we observed a moderate reduction in epsilon, which aligns with our intuitive expectations.




(a) Feature Number vs. epsilon (b) Graph Size vs. epsilon (c) GNN layer vs. epsilon

Figure 1: Additional epsilon range analysis

In addition, we implemented Experiment B in Section 5.4 to supplement the analysis of All-in-one-plus in multi-graph prompts. Here, we only used GPF-plus, All-in-one, and All-in-one-plus because, in Experiment b, we focused on analyzing the relationship between the scale and effectiveness of the prompts. The "scale" here refers to the number of prompt vectors and the number of nodes in the prompt subgraphs. For the single-prompt-vector case of GPF, our analysis essentially corresponds to the experiment in Section 5.4(a). All-in-one-plus also achieved a reduction in overall error due to the expanded search space, and the resulting surface exhibits a shape similar to that of the other two experiments in Section 5.4(b).

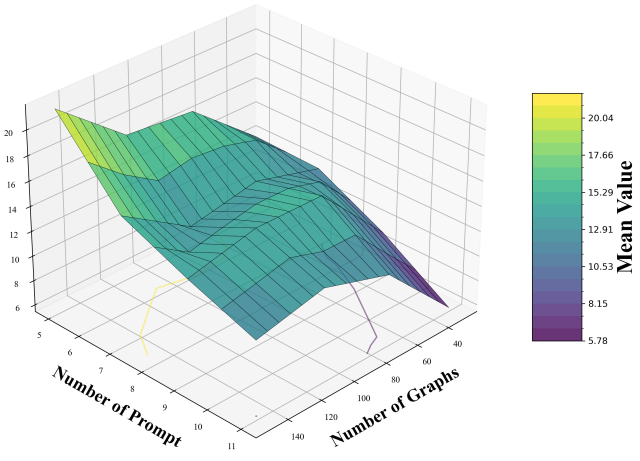



Figure 2: Additional multiple graph analysis with All-in-one-plus