

6. After only 20 examples, your learned function will not yet look like the target function. Explain in a paragraph why it looks the way it does. If your learned function involves many peaks and valleys, then be sure to explain both their number, their height, and their width. Suppose that, instead of tiling the input space into an 11×11 grid of squares, you had divided into an 11×21 grid of rectangles, with the x dimension being divided twice as finely as the y dimension. Explain how you would expect the function learned after 20 examples to change if this alternative tiling were used.

The reason of the heights are different between these peaks and valleys represents the value for the complete graph. If you look at the graph of f_{10000} , you will find the parts of peaks and valleys in f_{20} has the similar height with f_{10000} . The rest of flat part will have the height of it keep learning. It represents the close optimal method for the value which has learned.