Problem 5: The easy (1+ x+ y2) 1/2 = 1+ \frac{1}{2}(x+y^2) + \frac{1}{2}(x+y^2) + \frac{1}{2}(x+y^2)^2 + \frac{1}{2}(x-1)(x-2)(x+y^2)^3 + 473

order the E as a classic pathological synaptom of AD that correlates of 25 (rotely with dome for (X+X) Yo7
than any other factor [45]. Synaptic dyshupction is a Misnay xx latmonid seu os (lor example) decreased spine density [19], decreased (0,0) lambas yellow xx ample) decreased spine density [19], decreased (0,0) lambas yellow xx ample) release [46] and increased synaptic junction distance [20] in the presence of elevated  $A\beta$  or no viognal no because showing networks have focused on largely on  $\frac{1}{2}$ the hippo and seried areas, especially effects on interestion and storage (see tees in network output and oscillatory activity.

between MCs and GCs arone were substent for gamma upon oscillatory activity 5845 [3]. While the model misses various areas of OB functions, it captures key behavior, and its simplicity enables an analytical treatment that would otherwise be largely intractable; and its eniginal Li Hopfield work only implemented a 4D connection architecture; here, we spand the model to various sizes and 2D connection schemes. We found that the 1D and 2D connection schemes, we found that the 1D and 2D let works operate summarly, but in different regimes. Importantly, on the scale of the original Li-Hopfield model we found that for some types of damage, 2D networks show a significant enhancement of gamma oscillatory power at moderate levels of damage to the connections commentum on the rad of Capture and increased excitation, treatment of the model network behavior shows that this results from an increased excitation function decing essential. The balance of excitation with the manness ity of the network being essential. The balance of excitation