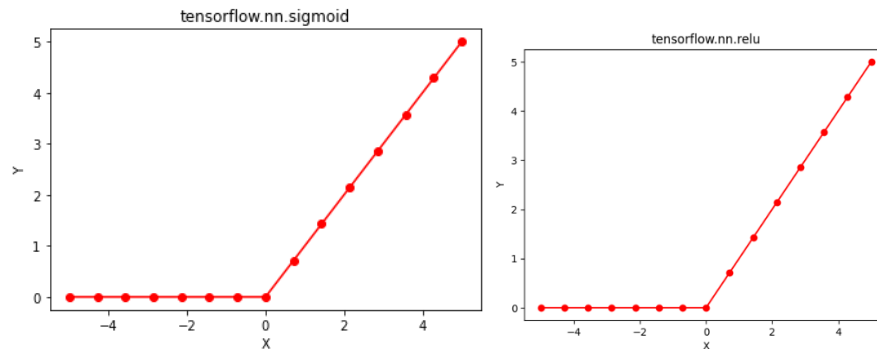
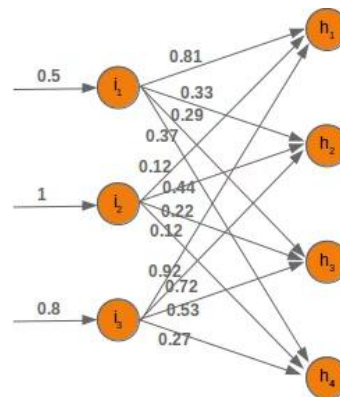


1. Define a function for representing the following expression and compute the gradients and print the same
 (i) $3w_1^2 + 2w_1w_2$ with w_1, w_2 as (3,3) (ii) w^2 with $w=1$
2. Obtain the following graphs using TensorFlow programming (numpy and matplotlib allowed)



3. Implement a feedforward calculation and obtain the node values of h_1, h_2, h_3 and h_4



4. Implement A simple digit recognition system and justify the performance