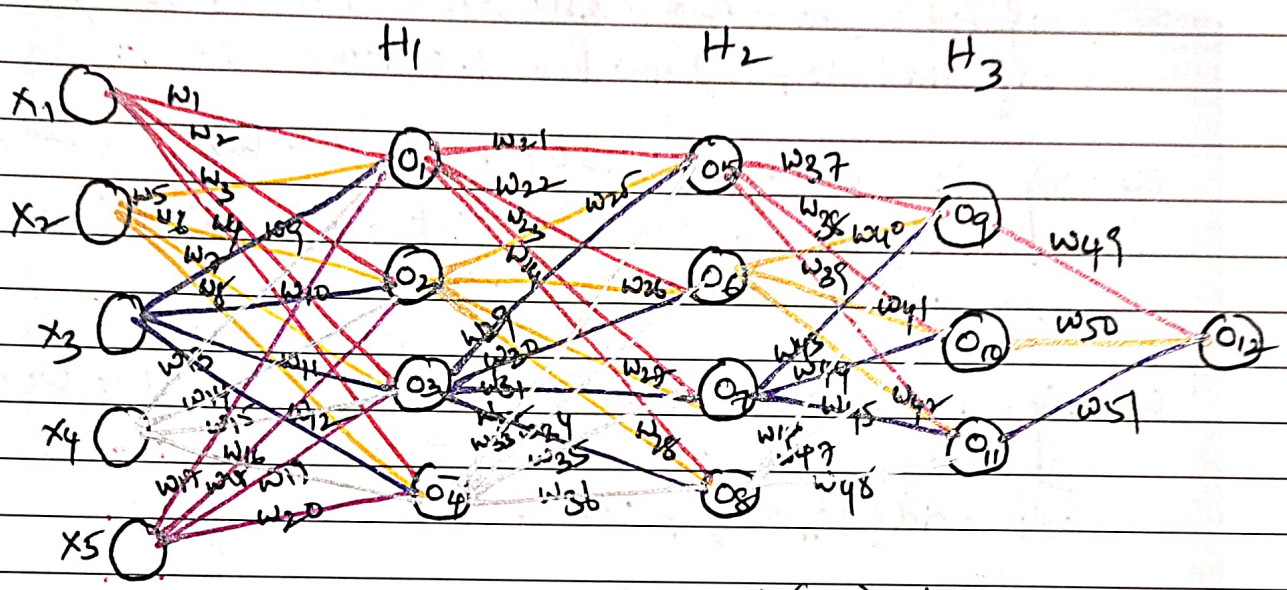
Input layer Hidden layer1 Hidden layer2 Hidden layer3 Output Layer



$Y = MX + C$, $O_1 = \text{sigmoid}(O_1) + \text{bias}$.

$O_1 = w_1x_1 + w_5x_2 + w_9x_3 + w_{13}x_4 + w_{17}x_5$

$= \text{sigmoid}(w_1x_1 + w_5x_2 + w_9x_3 + w_{13}x_4 + w_{17}x_5) + \text{bias}$

$= \text{sigmoid}(10\times10 + 50\times20 + 90\times30 + 130\times40 + 170\times50) + 0.1$

$= \text{sigmoid}(100 + 1000 + 2700 + 5400 + 8500) + 0.1$

$= \text{sigmoid}(17{,}700) + 0.1$

$= 1.0 + 0.1 = 1.1$

$O_2 = w_2x_1 + w_6x_2 + w_{10}x_3 + w_{14}x_4 + w_8x_5 + \text{bias}$

$= \text{sig}(20\times20 + 60\times20 + 100\times30 + 140\times40 + 180\times50) + 0.1$

$= \text{sig}(400 + 800 + 3000 + 5600 + 9000) + 0.1$

$= \text{sig}(18{,}800) + 0.1$

$= \text{sigmoid}(18{,}800) + 0.1 = 1.0 + 0.1 = 1.1$

$O_3 = w_3x_1 + w_7x_2 + w_{11}x_3 + w_{15}x_4 + w_{19}x_5$

$O_4 = w_4x_1 + w_8x_2 + w_{12}x_3 + w_{16}x_4 + w_{20}x_5$

$O_5 = w_{21}O_1 + w_{25}O_2 + w_{29}O_3 + w_{33}O_4 + bias$

$O_6 = w_{22}O_1 + w_{26}O_2 + w_{30}O_3 + w_{34}O_4 + bias$

$O_7 = w_{23}O_1 + w_{27}O_2 + w_{31}O_3 + w_{35}O_4 + bias$

$O_8 = w_{24}O_1 + w_{28}O_2 + w_{32}O_3 + w_{36}O_4 + bias$

$O_9 = w_{37}O_5 + w_{40}O_6 + w_{43}O_7 + w_{46}O_8 + bias$

$O_{10} = w_{38}O_5 + w_{41}O_6 + w_{44}O_7 + w_{47}O_8 + bias$

$O_{11} = w_{39}O_5 + w_{42}O_6 + w_{45}O_7 + w_{48}O_8 + bias$

$O_{12} = w_{49}O_9 + w_{50}O_{10} + w_{51}O_{11}$

$O_1 = Sigmoid(O_1) + bias.$

$O_1 = Sigmoid(w_1x_1 + w_5x_2 + w_9x_3 + w_{13}x_4 + w_{17}x_5) + bias$

$O_2 = Sigmoid(w_2x_1 + w_6x_2 + w_{10}x_3 + w_{14}x_4 + w_{18}x_5) + bias$

$O_3 = Sigmoid(w_3x_1 + w_7x_2 + w_{11}x_3 + w_{15}x_4 + w_{19}x_5) + bias$

$O_4 = Sigmoid(w_4x_1 + w_8x_2 + w_{12}x_3 + w_{16}x_4 + w_{20}x_5) + bias$

$O_5 = Sigmoid(w_{21}O_1 + w_{25}O_2 + w_{29}O_3 + w_{33}O_4) + bias$

$O_6 = Sigmoid(w_{22}O_1 + w_{26}O_2 + w_{30}O_3 + w_{34}O_4) + bias$

$O_7 = Sigmoid(w_{23}O_1 + w_{27}O_2 + w_{31}O_3 + w_{35}O_4) + bias$

$O_8 = Sigmoid(w_{24}O_1 + w_{28}O_2 + w_{32}O_3 + w_{36}O_4) + bias$

$O_9 = Sigmoid(w_{37}O_5 + w_{40}O_6 + w_{43}O_7 + w_{46}O_8) + bias$

$O_{10} = Sigmoid(w_{38}O_5 + w_{41}O_6 + w_{44}O_7 + w_{47}O_8) + bias$

$O_{11} = Sigmoid(w_{39}O_5 + w_{42}O_6 + w_{45}O_7 + w_{48}O_8) + bias$

$O_{12} = Sigmoid(w_{49}O_9 + w_{50}O_{10} + w_{51}O_{11}) + bias.$

$O_2 = 1.1$

$O_3 = \text{Sigmoid}(30\times10 + 70\times20 + 110\times30 + 150\times40 + 190\times5) + \text{bias}$

$= \text{Sigmoid}(300 + 1400 + 3300 + 1500 + 6000 + 950) + 0.1$

$= \text{Sigmoid}(13450) + 0.1 = 1.0 + 0.1 = 1.1$

$O_4 = \text{Sigmoid}(40\times10 + 80\times20 + 120\times30 + 160\times40 + 200\times50)$

$= \text{Sigmoid}(400 + 1600 + 3600 + 6400 + 10000) + \text{bias}$

$= \text{Sigmoid}(22000) = 1.0$

$O_5 = \text{Sigmoid}(210\times1.1 + 250\times1.1 + 290\times1.1 + 330\times1.1) + 0.1$

$= \text{Sigmoid}(2100 + 5000 + 8700 + 13200) + 0.1$

$= \text{Sigmoid}(29{,}000) + 0.1 = 1.0 + 0.1 = 1.1$

$O_6 = \text{Sigmoid}(220\times10 + 260\times20 + 300$

$O_5 = \text{Sig}(210\times1.1 + 250\times1.1 + 290\times1.1 + 330\times1.1) + 0.$

$= \text{Sigmoid}(231 + 275 + 319 + 363) + 0.1$

$= \text{Sigmoid}(1188) + 0.1 = 1 + 1.1 = 1.1$

$O_6 = \text{Sig}(220\times1.1 + 260\times1.1 + 300\times1.1 + 340\times1.1) + 0.1$

$= \text{Sig}(242 + 286 + 330 + 374) + 0.1$

$= \text{Sig}(1232) = 1.0 + 0.1 = 1.1$

$O_7 = \text{Sig}(230\times1.1 + 270\times1.1 + 310\times1.1 + 350\times1.1) + 0.1$

$= \text{Sig}(253 + 297 + 341 + 385) + 0.1$

$= \text{Sig}(1276) + 0.1 = 1.0 + 0.1 = 1.1$

$O_8 = \text{Sig}(240\times1.1 + 280\times1.1 + 320\times1.1 + 360\times1.1) + 0.1$

$= \text{Sig}(264 + 308 + 352 + 396) + 0.1$

$= \text{Sig}(1320) + 0.1$

$= 1.0 + 0.1 = 1.1$

O_9 = Sigmoid $(370 \times 1.1 + 400 \times 1.1 + 430 \times 1.1 + 460 \times 1.1) + 0.1$
= Sigmoid $(407 + 440 + 473 + 504) + 0.1$
= Sigmoid $(1826) + 0.1$
= Sigmoid $(1826) + 0.1 = 1.0 + 0.1 = 1.1$

O_{10} = Sigmoid $(380 \times 1.1 + 410 \times 1.1 + 440 \times 1.1 + 470 \times 1.1) + 0.1$
= Sigmoid $(418 + 451 + 484 + 517) + 0.1$
= Sigmoid $(1870) + 0.1 = 1.0 + 0.1 = 1.1$

O_{11} = Sigmoid $(390 \times 1.1 + 420 \times 1.1 + 450 \times 1.1 + 480 \times 1.1) + 0.1$
= Sigmoid $(429 + 462 + 495 + 528) + 0.1$
= Sigmoid $(1914) + 0.1 = 1.0 + 0.1 = 1.1$

O_{12} = Sigmoid $(490 \times 1.1 + 500 \times 1.1 + 510 \times 1.1) + bias$
= Sigmoid $(539 + 550 + 561) + bias$
= Sigmoid $(1650) + 0.1 = 1.0 + 0.1 = 1.1$

$w_1 = 10$
$w_2 = 20$
$w_3 = 30$
$w_4 = 40$
$w_5 = 50$
$w_6 = 60$
$w_7 = 70$
$w_8 = 80$
$w_9 = 90$
$w_{10} = 100$
$w_{11} = 110$
$w_{12} = 120$
$w_{13} = 130$
$w_{14} = 140$
$w_{15} = 150$
$w_{16} = 160$
$w_{17} = 170$
$w_{18} = 180$
$w_{19} = 190$
$w_{20} = 200$
$w_{21} = 210$
$w_{22} = 220$
$w_{23} = 230$
$w_{24} = 240$
$w_{25} = 250$
$w_{26} = 260$
$w_{27} = 270$
$w_{28} = 280$
$w_{29} = 290$
$w_{30} = 300$
$w_{31} = 310$
$w_{32} = 320$
$w_{34} = 330$
$w_{35} = 340$
$w_{36} = 350$
$w_{37} = 360$
$w_{38} = 370$
$w_{39} = 380$
$w_{40} = 390$
$w_{41} = 400$
$w_{42} = 410$
$w_{43} = 420$
$w_{44} = 430$
$w_{45} = 440$
$w_{46} = 450$
$w_{46} = 460$
$w_{47} = 470$
$w_{48} = 480$
$w_{49} = 490$
$w_{50} = 500$
$w_{51} = 510$

$x_1 = 10$
$x_2 = 20$
$x_3 = 30$
$x_4 = 40$
$x_5 = 50$

Bias = 0.1

$O_1 = 1.1$
$O_2 = 1.1$
$O_3 = 1.1$
$O_4 = 1.1$

$O_5 = 1.1$
$O_6 = 1.1$
$O_7 = 1.1$
$O_8 = 1.1$

$O_9 = 1.1$
$O_{10} = 1.1$
$O_{11} = 1.1$
$O_{12} = 1.1$