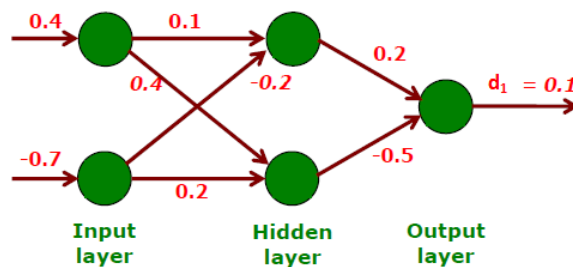




H.W (1) Suppose you have BP- ANN with 2-input, 2-hiddden, 1-output nodes with **sigmoid function** and the following matrices initial weights, trace with 2-iteration.

$$V = \begin{Bmatrix} 0.1 & 0.4 \\ -0.2 & 0.2 \end{Bmatrix} \quad W = \begin{Bmatrix} 0.2 \\ -0.5 \end{Bmatrix}, \quad \text{Where } \alpha = 0.1, \eta = 0.6$$

Epoch	i	Input		Output	Initial Weights						Y_1 (O_{actual})	Δ_1	δ_1	δ_2	Final Weights					
		X_1	X_2	d_1 (O_{desired})	V_{11}	V_{12}	V_{21}	V_{22}	W_{11}	W_{21}					V_{11}	V_{12}	V_{21}	V_{22}	W_{11}	W_{21}
1	1	0.4	-0.7	0.1	0.1	0.4	-0.2	0.2	0.2	-0.5										
	2	0.3	-0.5	0.05																
	3	0.6	0.1	0.3																
	4	0.2	0.4	0.25																
	5	0.1	-0.2	0.12																
2	1	0.4	-0.7	0.1																
	2	0.3	-0.5	0.05																
	3	0.6	0.1	0.3																
	4	0.2	0.4	0.25																
	5	0.1	-0.2	0.12																



توضيح الحل :

Fig. Multi layer feed forward neural network (MFNN) architecture with data of the first training set