

### Phase 1 : Activation et Fonction d'activation

Matrice Activation :

Couche 1: 7.000000 10.000000

Couche 2: 2.158695 3.271661 4.384626

Couche 3: -1.223123 -0.467481

Matrice Sortie fonction d'activation :

Couche 1: 0.656987 -0.544021

Couche 2: 0.832108 -0.129701 -0.946765

Couche 3: -0.940168 -0.450639

### Phase 2 : signal d'erreur

Matrice delta :

Couche 1: -493.983630 757.678033

Couche 2: -21.752673 -44.539351 -16.294680

Couche 3: 0.661038 2.187701

### Phase 3: Facteur de correction

Matrice DeltaW

Couche 1

DeltaW(1, 1, 1)=-49.398363 DeltaW(1, 1, 2)=75.767803

DeltaW(1, 2, 1)=-0.000000 DeltaW(1, 2, 2)=0.000000

DeltaW(1, 3, 1)=-49.398363 DeltaW(1, 3, 2)=75.767803

Couche 2

DeltaW(2, 1, 1)=-1.429121 DeltaW(2, 1, 2)=-2.926176 DeltaW(2, 1, 3)=-1.070539

DeltaW(2, 2, 1)=1.183391 DeltaW(2, 2, 2)=2.423035 DeltaW(2, 2, 3)=0.886465

Couche 3

DeltaW(3, 1, 1)=0.055005 DeltaW(3, 1, 2)=0.182040

DeltaW(3, 2, 1)=-0.008574 DeltaW(3, 2, 2)=-0.028375

DeltaW(3, 3, 1)=-0.062585 DeltaW(3, 3, 2)=-0.207124

### Phase 4: Mise a jour des poids

Matrice W

Couche 1

W(1, 1, 1)=-48.398363 W(1, 1, 2)=77.767803

W(1, 2, 1)=3.000000 W(1, 2, 2)=4.000000

W(1, 3, 1)=-44.398363 W(1, 3, 2)=81.767803

Couche 2

W(2, 1, 1)=5.570879 W(2, 1, 2)=5.073824 W(2, 1, 3)=7.929461

W(2, 2, 1)=11.183391 W(2, 2, 2)=13.423035 W(2, 2, 3)=12.886465

Couche 3

W(3, 1, 1)=13.055005 W(3, 1, 2)=14.182040

W(3, 2, 1)=14.991426 W(3, 2, 2)=15.971625

W(3, 3, 1)=16.937415 W(3, 3, 2)=17.792876

