Bacharelado em Ciência da Computação - UFU

Disciplina: Inteligência Computacional - 2015/2

Trabalho: Perceptron/Dígitos

Aluno: Bruno Well Dantas Morais

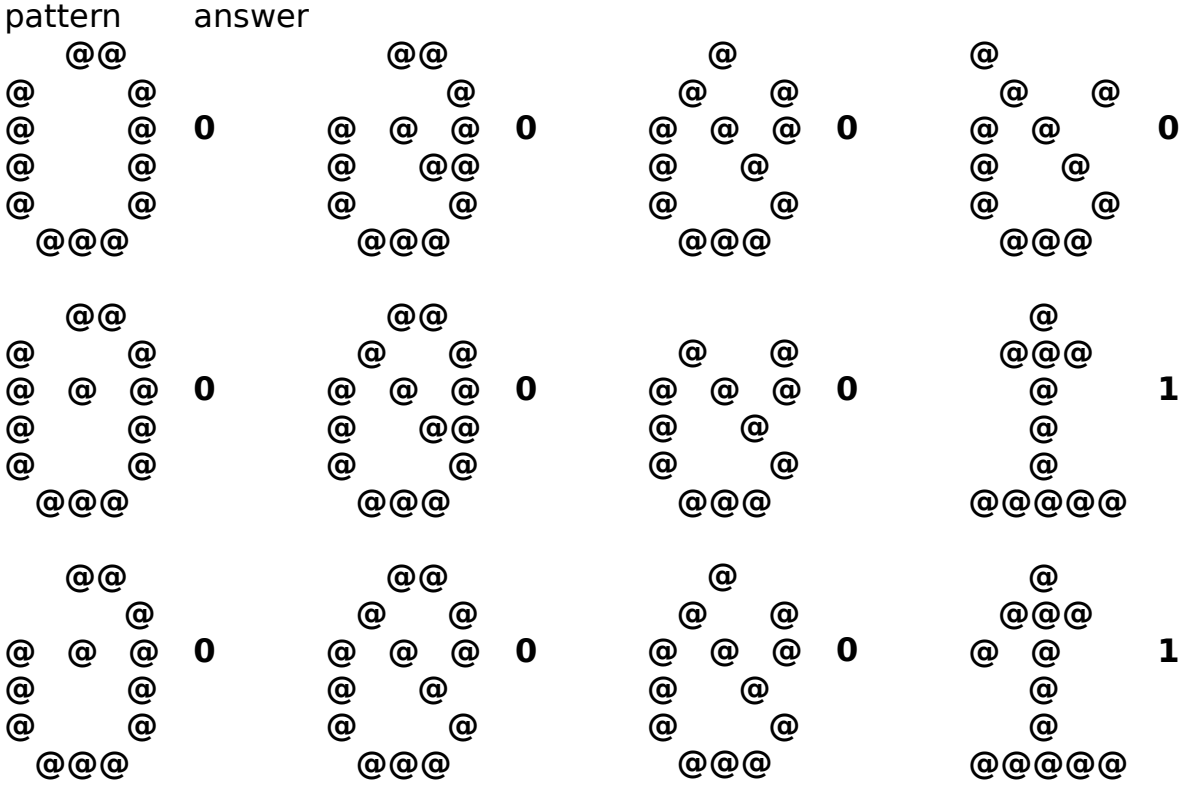
Exercício 1)

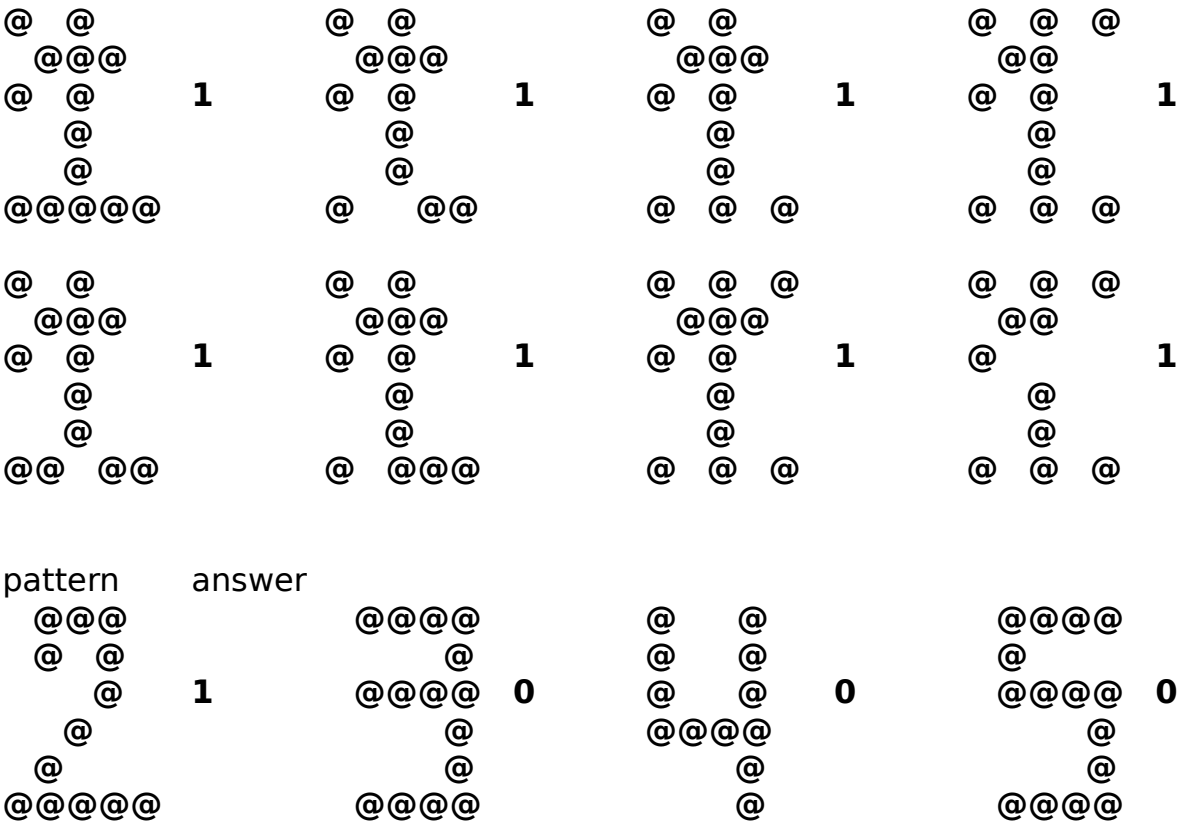
Total de epochs: 3

neuron	weights
1	0, 0, -1, 0, -1, 0, -1, 1, 1, 0, -1, -1, 0, 1, 0, -1, -1, 0, 1, 0, -1, -1, 0, 1, 0, -1, 1, 0, 0, 0, 1

Padrões utilizados no treinamento:

Testes realizados:





Exercício 2)

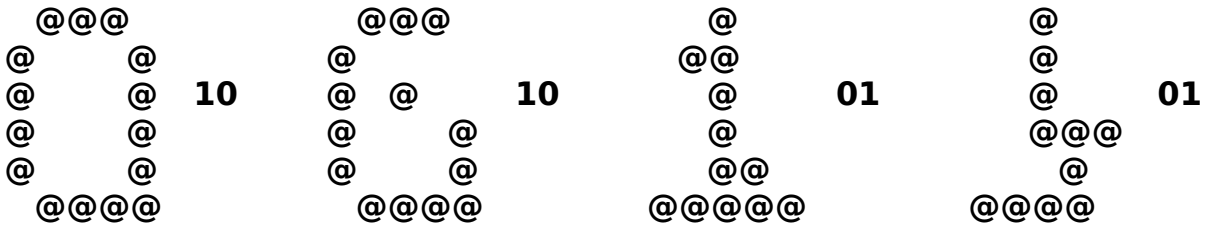
Total de epochs: 6

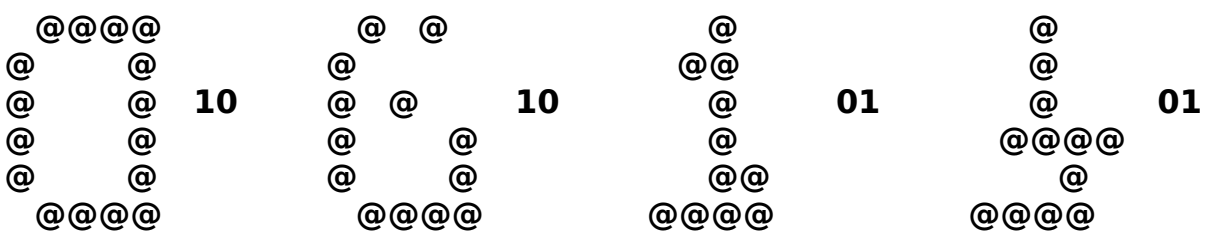
neuron	weights
1	0, 0, 1, 0, 1, 0, 1, -1, -1, 0, 1, 1, 0, -1, 0, 1, 1, 0, -1, 0, 1, 1, 0, -1, 0, 1, -1, 0, 0, 0, -1
2	0, 0, -1, 0, -1, 0, -1, 1, 1, 0, -1, -1, 0, 1, 0, -1, -1, 0, 1, 0, -1, -1, 0, 1, 0, -1, 1, 0, 0, 0, 1

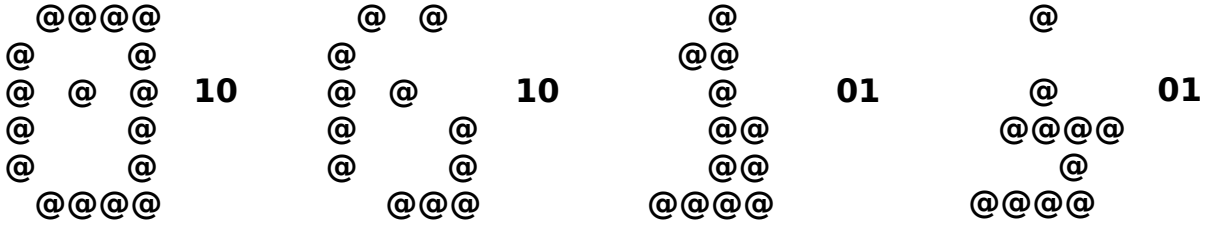
Padrões utilizados no treinamento:

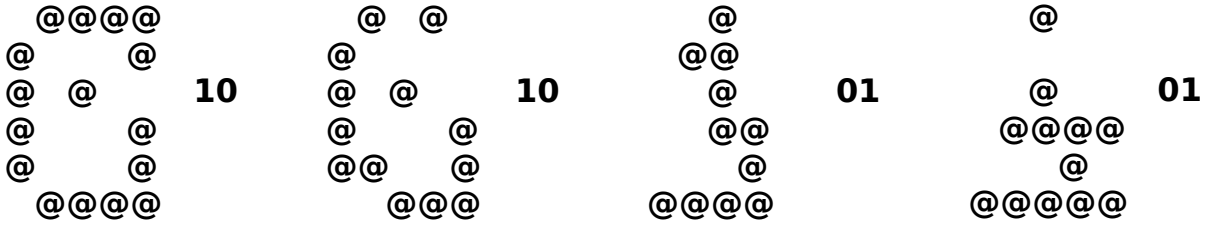
Testes realizados:

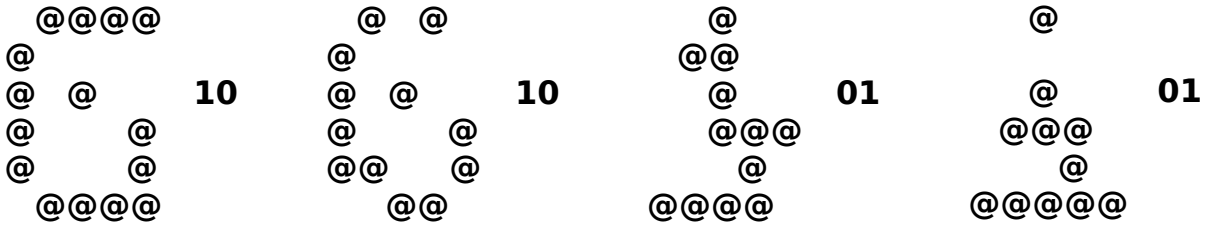
pattern answer



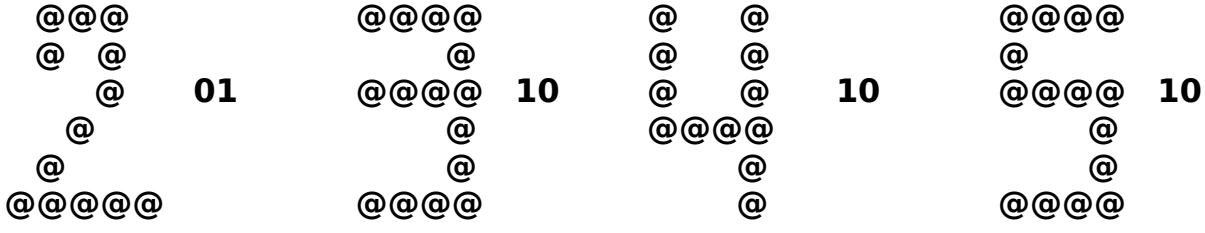








pattern answer

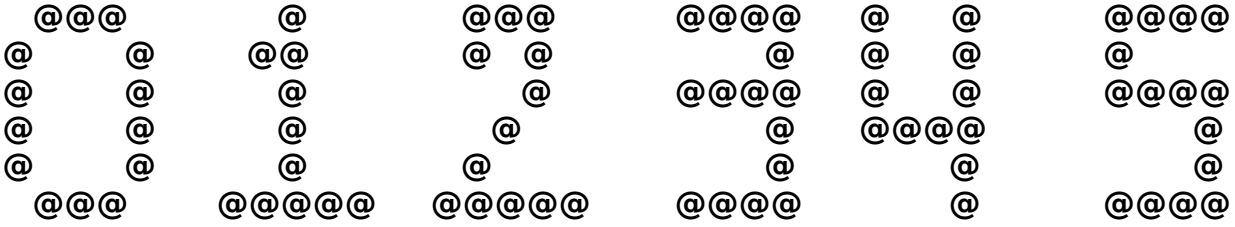


Exercício 3)

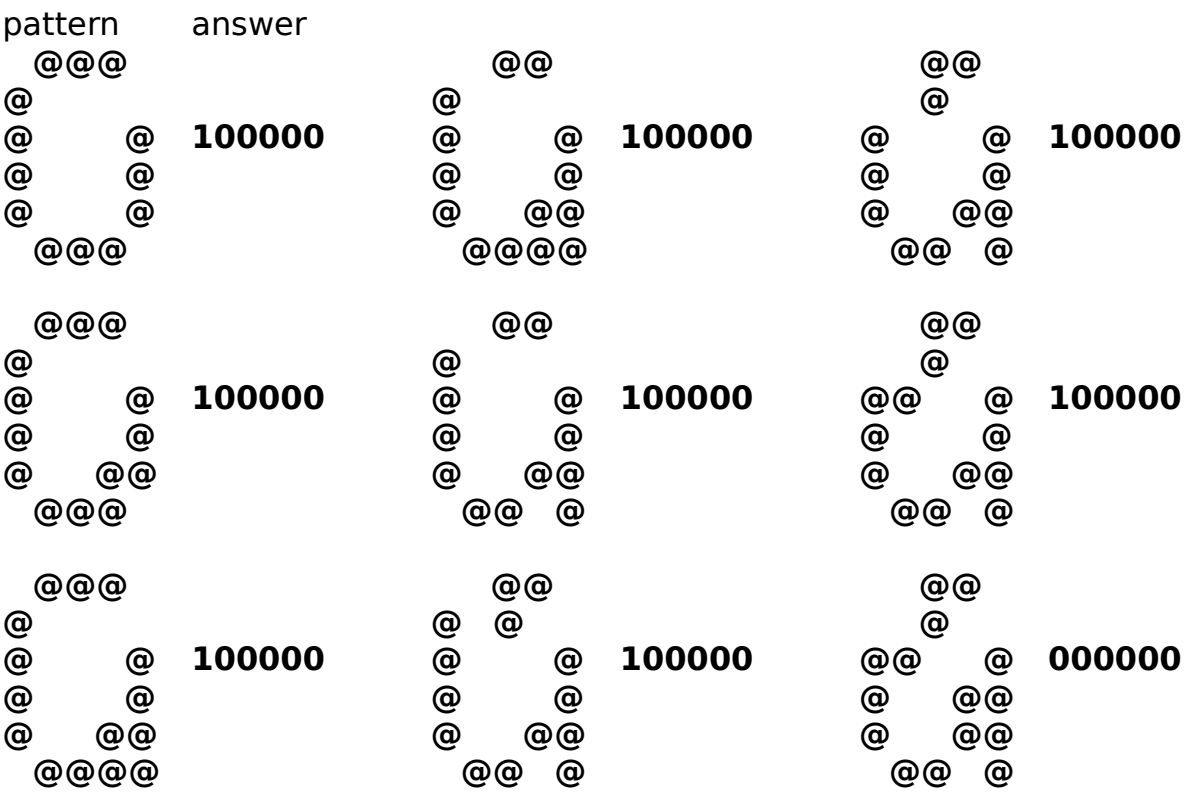
Total de epochs: 42

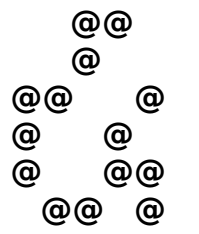
neuron	weights
1	-1, -1, 1, 0, 0, -1, 1, -1, -1, -1, 1, 1, -1, -2, -2, 1, 1, -1, -2, -1, 1, 2, 0, -1, -1, 1, -1, 0, 0, -1, -2
2	0, 0, -2, 0, -2, 0, -1, 1, 2, -1, -1, -1, 0, 2, -1, -1, -1, 0, 1, 0, -1, -1, -1, 2, 0, -1, 1, 0, 0, 0, 1
3	-1, 0, 1, -1, 1, 0, -1, 0, -2, 2, -1, -1, 0, -2, 2, -1, -1, 0, 0, 0, -1, -1, 2, -2, 0, -1, 0, -1, -1, -1, 0
4	-1, 0, 0, -1, 0, 2, -2, -3, -1, 0, 2, -2, 2, 1, 2, 0, -2, 0, -1, 0, 0, -2, 0, -1, 0, 0, -1, -1, -1, -1, 1
5	0, 1, -1, -1, 0, 0, 0, 0, 0, 1, -1, 0, 0, 0, 1, -1, 0, 1, 1, 1, -1, -1, 0, 0, 1, -1, 0, -1, -1, 0, 0
6	-1, 0, 0, -1, 0, 2, -1, 3, -1, -1, -4, -1, 2, 1, 1, 1, -1, 0, -2, 0, 1, -1, -1, -1, 0, 1, -2, -1, -1, -1, 0

Padrões utilizados no treinamento:



Testes realizados:





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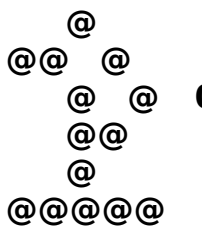

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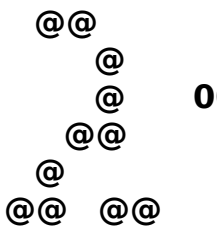

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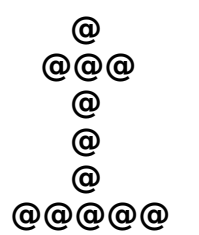

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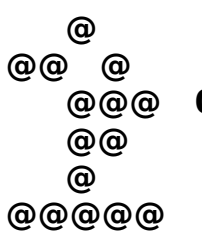

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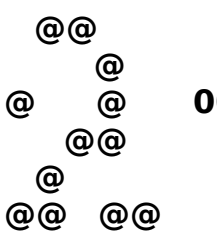

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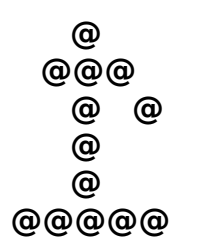

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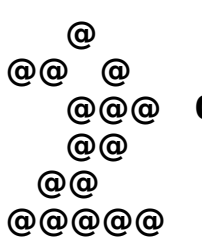

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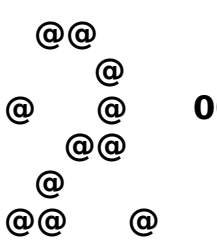

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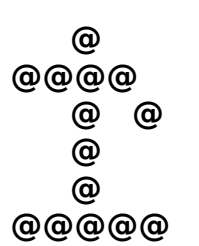

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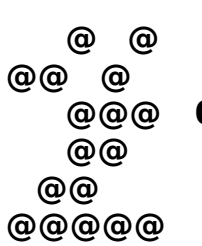

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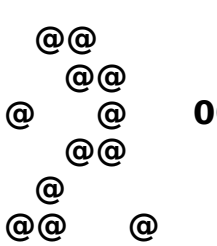

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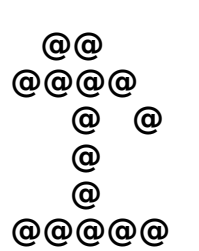

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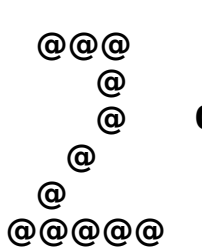

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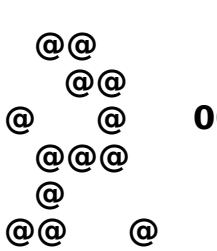

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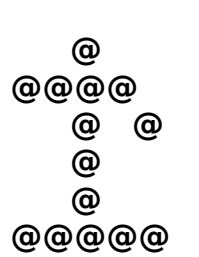

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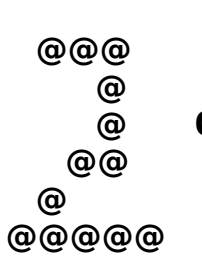

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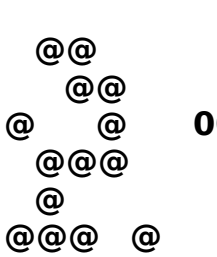

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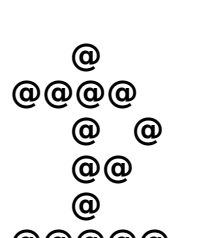

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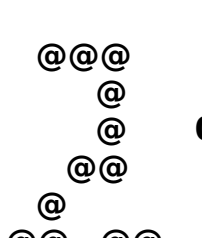

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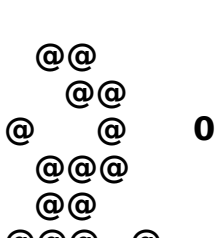

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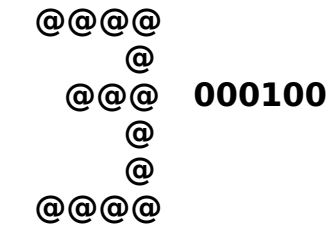

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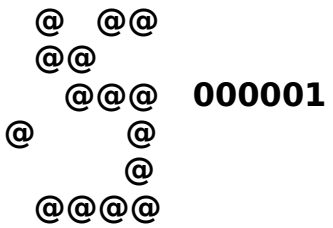

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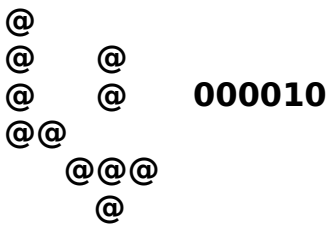

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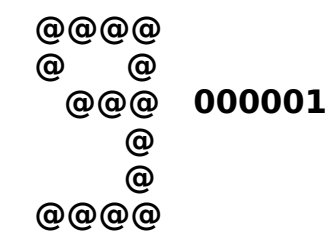

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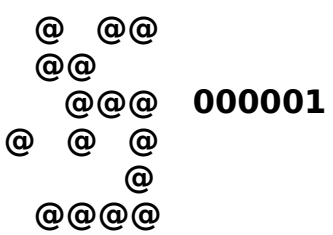

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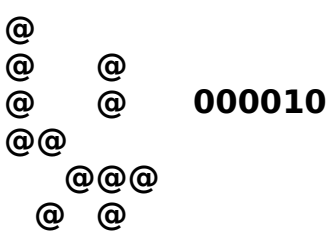

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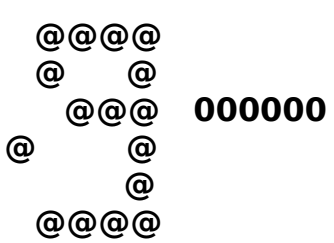

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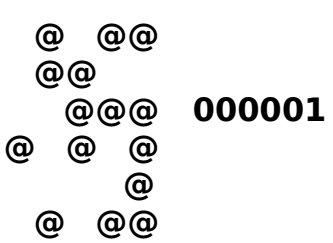

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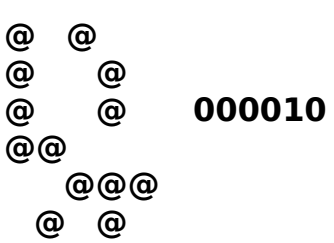

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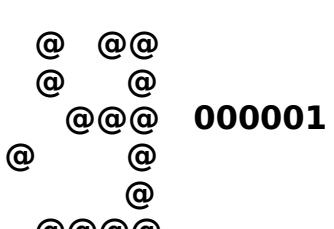

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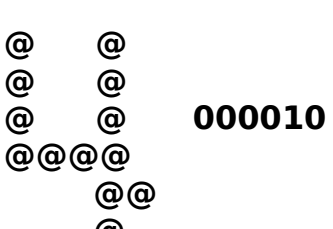

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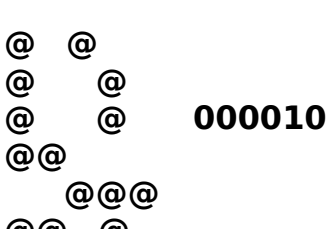

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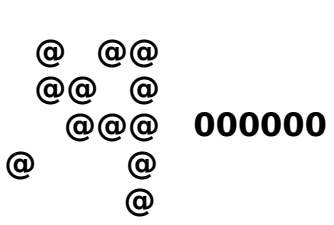

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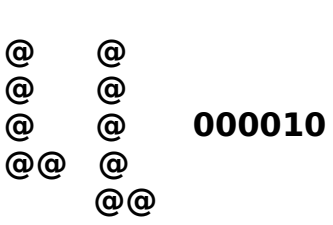

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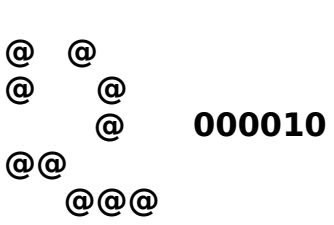

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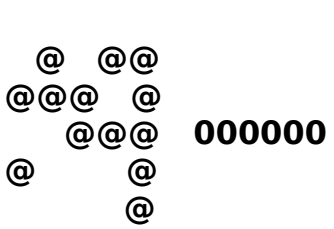

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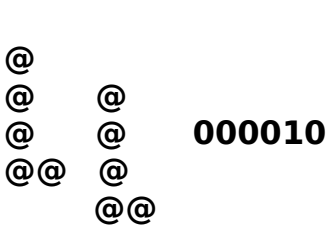

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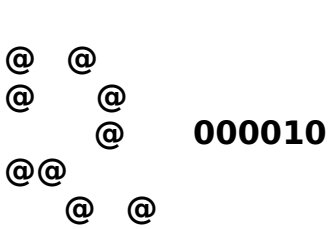

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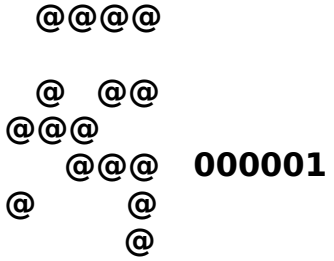

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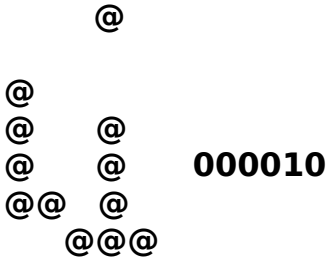

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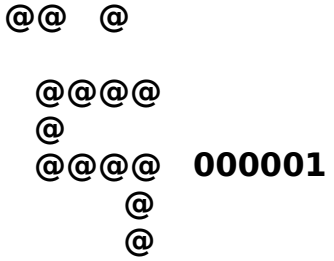

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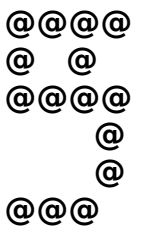
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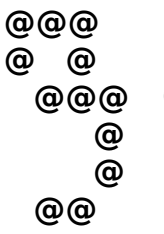
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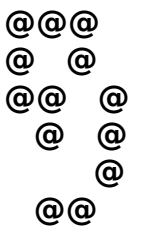
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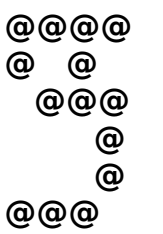
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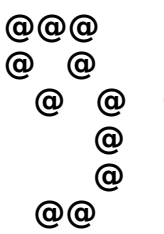
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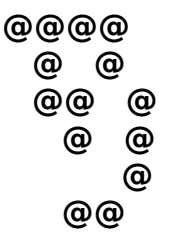
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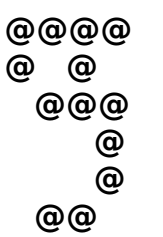
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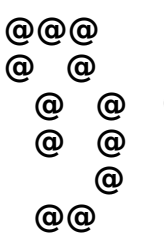
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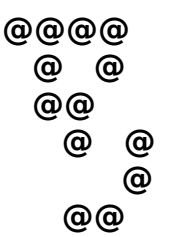
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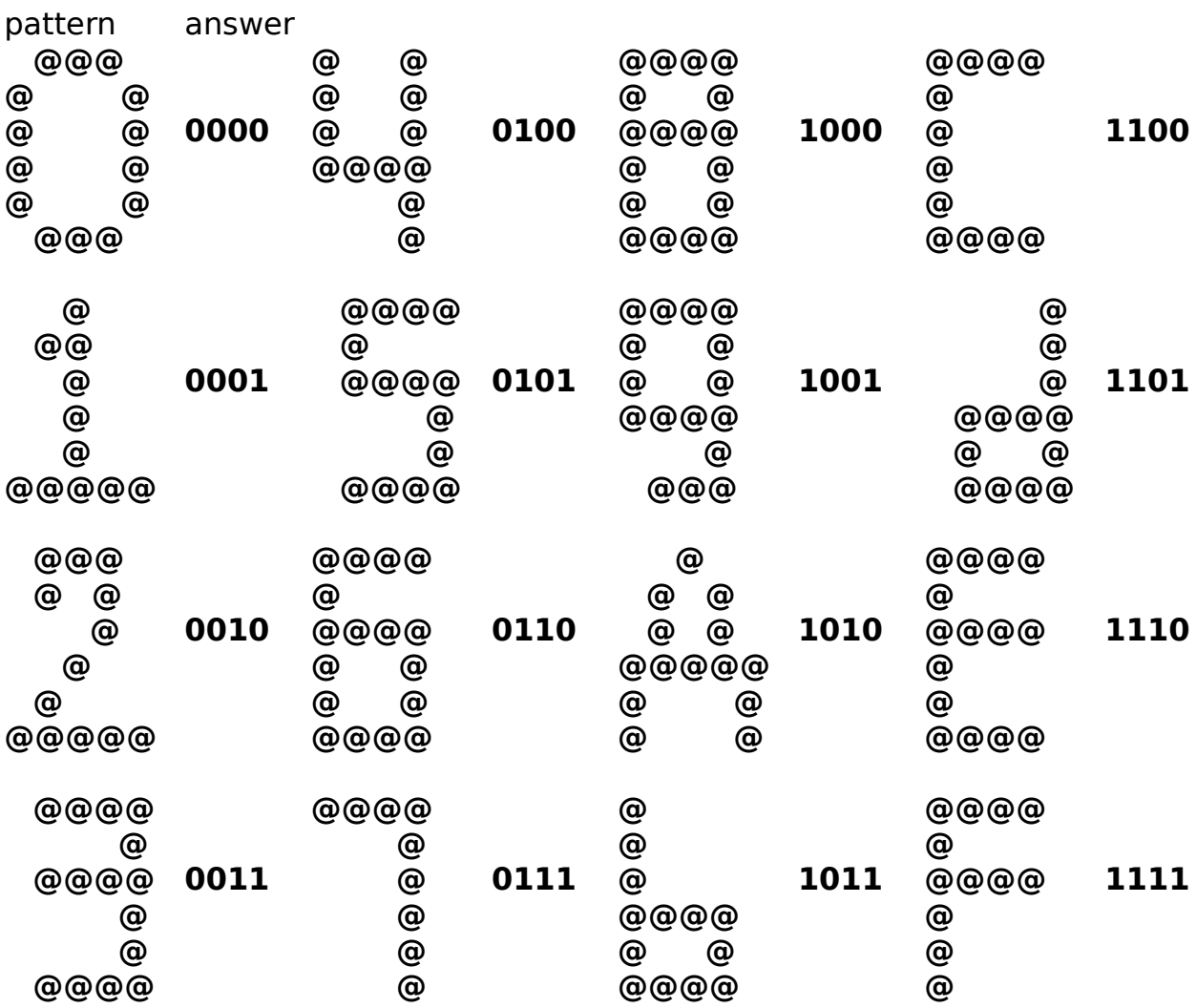
Experimento)

Perceptron com 4 neurônios de saída para aprender todos os padrões da base hexadecimal.

Total de epochs: 547

neuron	weights
1	-3, 8, 2, 2, -13, 8, 0, -8, -2, 17, -3, 0, 5, 1, -8, -3, 2, 10, 0, 0, -1, 4, 0, -2, -10, -1, 5, 6, 6, -12, 0
2	4, 8, 1, -2, 10, 5, 1, 7, -2, -18, -11, 1, -1, -2, 3, 1, 0, -1, -5, 8, 0, -3, 9, -2, -2, 0, -3, -7, -7, 5, 0
3	1, 1, 4, 2, 0, -4, -7, -8, -6, -20, 8, -7, 4, -6, 13, -8, -3, 2, 6, 1, -4, 2, 1, -6, 6, -4, 10, -3, -3, -3, 4
4	5, 10, 6, 7, -8, 7, -4, -4, 3, -4, -1, -4, -1, 4, -3, 1, -6, 7, 3, -2, -1, -3, -7, 3, 0, -1, -1, 1, 1, -5, 1

Padrões utilizados no treinamento:



(padrões adicionais inspirados pelo display 7 segmentos)