RHO

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho: 0.90** | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1562 | **Accuracy:** 0.4660 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	33	13	20	7
F2	35	9	23	12
F3	39	14	22	9
F4	35	6	24	19

Loss: 0.1180 | **Accuracy:** 0.6074 | **Başarı Yüzdesi:** 28%

	F1	F2	F3	F4
F1	37	10	13	17
F2	34	8	14	13
F3	40	10	22	18
F4	33	9	19	23

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho:** 0.75 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1581 | **Accuracy:** 0.4707 | **Başarı Yüzdesi:** 23%

	F1	F2	F3	F4
F1	**35**	11	27	8
F2	38	**8**	20	3
F3	33	14	**22**	7
F4	36	19	28	**11**

Loss: 0.1698 | **Accuracy:** 0.4014 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	**13**	20	39	12
F2	12	**15**	41	10
F3	15	19	**40**	4
F4	15	13	42	**10**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho:** 0.50 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1556 | **Accuracy:** 0.4561 | **Başarı Yüzdesi:** 29%

	F1	F2	F3	F4
F1	9	14	12	35
F2	5	25	21	32
F3	8	27	22	30
F4	7	14	22	37

Loss: 0.1651 | **Accuracy:** 0.4131 | **Başarı Yüzdesi:** 27%

	F1	F2	F3	F4
F1	2	11	17	42
F2	12	15	14	41
F3	8	14	16	38
F4	8	10	17	55

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho:** 0.30 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1444 | **Accuracy:** 0.5059 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**14**	30	18	22
F2	15	**27**	15	20
F3	17	23	**17**	20
F4	14	30	16	**22**

Loss: 0.1052 | **Accuracy:** 0.6309 | **Başarı Yüzdesi:** 29%

	F1	F2	F3	F4
F1	**23**	23	15	18
F2	17	**29**	12	16
F3	26	17	**17**	14
F4	20	28	21	**24**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho:** 0.10 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1735 | **Accuracy:** 0.3857 | **Başarı Yüzdesi:** 22%

	F1	F2	F3	F4
F1	**20**	14	45	7
F2	21	**15**	41	5
F3	20	20	**29**	6
F4	18	18	32	**9**

Loss: 0.0910 | **Accuracy:** 0.6787 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**17**	18	27	17
F2	19	**24**	25	16
F3	32	16	**17**	17
F4	17	20	15	**23**

LEARNING RATE

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.01 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1562 | **Accuracy:** 0.4660 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**33**	13	20	7
F2	35	**9**	23	12
F3	39	14	**22**	9
F4	35	6	24	**19**

Loss: 0.1180 | **Accuracy:** 0.6074 | **Başarı Yüzdesi:** 28%

	F1	F2	F3	F4
F1	**37**	10	13	17
F2	34	**8**	14	13
F3	40	10	**22**	18
F4	33	9	19	**23**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.005 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1792 | **Accuracy:** 0.3359 | **Başarı Yüzdesi:** 23%

	F1	F2	F3	F4
F1	**2**	15	56	3
F2	2	**26**	53	2
F3	2	21	**45**	2
F4	1	27	60	**2**

Loss: 0.1680 | **Accuracy:** 0.4023 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**14**	5	28	29
F2	11	**1**	39	22
F3	16	6	**41**	13
F4	19	4	47	**25**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1155 | **Accuracy:** 0.6016 | **Başarı Yüzdesi:** 28%

	F1	F2	F3	F4
F1	**24**	16	16	18
F2	18	**19**	19	24
F3	19	17	**19**	26
F4	13	17	26	**29**

Loss: 0.1532 | **Accuracy:** 0.4414 | **Başarı Yüzdesi:** 21%

	F1	F2	F3	F4
F1	**26**	26	17	10
F2	29	**11**	18	10
F3	32	22	**24**	10
F4	33	20	23	**9**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.0001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1598 | **Accuracy:** 0.4756 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**16**	14	27	21
F2	10	**20**	22	21
F3	14	16	**28**	30
F4	12	21	30	**18**

Loss: 0.1618 | **Accuracy:** 0.4736 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**22**	25	19	16
F2	16	**18**	16	24
F3	27	12	**21**	25
F4	19	25	13	**22**

HIDDEN LAYERS

28

100 - ReLu

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1507 | **Accuracy:** 0.4732 | **Başarı Yüzdesi:** 17%

	F1	F2	F3	F4
F1	20	1	42	21
F2	22	1	39	25
F3	26	2	25	24
F4	27	3	31	11

Loss: 0.1660 | **Accuracy:** 0.4209 | **Başarı Yüzdesi:** 19%

	F1	F2	F3	F4
F1	26	13	18	20
F2	38	6	11	21
F3	47	12	16	18
F4	43	7	9	15

28

100 - ReLu

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1818 | **Accuracy:** 0.3320 | **Başarı Yüzdesi:** 27%

	F1	F2	F3	F4
F1	9	32	13	21
F2	5	37	6	26
F3	8	51	8	24
F4	6	37	2	35

Loss: 0.1814 | **Accuracy:** 0.3340 | **Başarı Yüzdesi:** 22%

	F1	F2	F3	F4
F1	6	15	7	44
F2	7	19	2	59
F3	8	15	5	56
F4	9	19	6	43

28

100 - ReLu

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.3745 | **Accuracy:** 0.2520 | **Başarı Yüzdesi:** 26%

	F1	F2	F3	F4
F1	0	0	79	0
F2	0	0	69	0
F3	0	0	85	0
F4	0	0	87	0

Loss: 0.2500 | **Accuracy:** 02393 | **Başarı Yüzdesi:** 26%

	F1	F2	F3	F4
F1	85	0	0	0
F2	70	0	0	0
F3	67	0	0	0
F4	98	0	0	0

16 - ReLu

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.6230 | **Accuracy:** 0.2383 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	0	73	0	0
F2	0	77	0	0
F3	0	91	0	0
F4	0	79	0	0

Loss: 0.3784 | **Accuracy:** 0.2432 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	79	0	0	0
F2	66	0	0	0
F3	83	0	0	0
F4	92	0	0	0

28

16 - ReLu

16 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1872 | **Accuracy:** 0.2676 | **Başarı Yüzdesi:** 27%

	F1	F2	F3	F4
F1	1	0	43	35
F2	0	0	42	24
F3	0	0	47	34
F4	1	0	54	39

Loss: 0.1862 | **Accuracy:** 0.2861 | **Başarı Yüzdesi:** 22%

	F1	F2	F3	F4
F1	0	0	76	6
F2	0	0	65	8
F3	0	0	63	14
F4	0	0	75	13

28

16 - ReLu

16 - Tanh

16 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1862 | **Accuracy:** 0.2930 | **Başarı Yüzdesi:** 23%

	F1	F2	F3	F4
F1	**31**	20	6	19
F2	39	**15**	3	15
F3	43	13	**6**	19
F4	38	23	6	**24**

Loss: 0.1851 | **Accuracy:** 0.2939 | **Başarı Yüzdesi:** 22%

	F1	F2	F3	F4
F1	**0**	15	53	23
F2	0	**7**	45	20
F3	0	16	**46**	19
F4	0	5	53	**18**

28

16 - ReLu

16 - Tanh

16 - Tanh

16 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Rho:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1873 | **Accuracy:** 0.2695 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	**5**	0	17	51
F2	6	**0**	22	54
F3	14	0	**15**	42
F4	10	0	21	**63**

Loss: 0.1858 | **Accuracy:** 0.2871 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	**5**	30	0	47
F2	0	**27**	0	35
F3	0	34	**0**	54
F4	1	41	1	**45**

OPT. & MOMENTUM

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Momentum:** 0.90 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: SGD | **Loss:** Mean Square Error

Loss: 0.1870 | **Accuracy:** 0.2656 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	**0**	2	14	63
F2	0	**0**	15	57
F3	0	0	**9**	76
F4	0	0	15	**69**

Loss: 0.1872 | **Accuracy:** 0.2754 | **Başarı Yüzdesi:** 23%

	F1	F2	F3	F4
F1	**0**	0	0	83
F2	1	**0**	0	70
F3	0	0	**0**	90
F4	0	0	0	**76**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Momentum:** 0.70 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: SGD | **Loss:** Mean Square Error

Loss: 0.1858 | **Accuracy:** 0.2969 | **Başarı Yüzdesi:** 25%

	F1	F2	F3	F4
F1	11	24	15	21
F2	11	19	22	28
F3	6	30	22	25
F4	14	21	28	31

Loss: 0.1873 | **Accuracy:** 0.2559 | **Başarı Yüzdesi:** 26%

	F1	F2	F3	F4
F1	0	0	1	73
F2	0	0	2	67
F3	0	0	0	89
F4	0	1	2	85

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Momentum:** 0.50 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: SGD | **Loss:** Mean Square Error

Loss: 0.1866 | **Accuracy:** 0.2852 | **Başarı Yüzdesi:** 28%

	F1	F2	F3	F4
F1	8	19	16	27
F2	6	26	21	23
F3	15	25	22	25
F4	6	31	15	35

Loss: 0.1866 | **Accuracy:** 0.2998 | **Başarı Yüzdesi:** 24%

	F1	F2	F3	F4
F1	3	14	33	30
F2	5	13	27	36
F3	6	13	23	31
F4	4	15	28	39

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Momentum:** 0.15 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: SGD | **Loss:** Mean Square Error

Loss: 0.1866 | **Accuracy:** 0.2793 | **Başarı Yüzdesi:** 28%

	F1	F2	F3	F4
F1	14	17	28	8
F2	14	31	21	8
F3	10	28	29	14
F4	16	25	41	16

Loss: 0.1863 | **Accuracy:** 0.3105 | **Başarı Yüzdesi:** 19%

	F1	F2	F3	F4
F1	6	16	6	42
F2	23	14	14	28
F3	19	14	12	43
F4	17	16	19	31

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | **Momentum:** 0.05 | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: SGD | **Loss:** Mean Square Error

Loss: 0.1858 | **Accuracy:** 0.3047 | **Başarı Yüzdesi:** 26%

	F1	F2	F3	F4
F1	**13**	12	21	34
F2	12	**10**	19	36
F3	7	11	**21**	50
F4	10	3	19	**42**

Loss: 0.1863 | **Accuracy:** 0.3105 | **Başarı Yüzdesi:** 26%

	F1	F2	F3	F4
F1	**14**	21	33	10
F2	16	**13**	35	10
F3	17	16	**35**	11
F4	9	15	43	**22**

28

100 - ReLu

100 - Tanh

100 - Tanh

100 - Tanh

4 - Sigmoid

Learning Rate: 0.001 | — | **Batch Size:** 1024 | **Epoch:** 10000

Optimizer: RMSprop | **Loss:** Mean Square Error

Loss: 0.1128 | **Accuracy:** 0.6133 | **Başarı Yüzdesi:** 27%

	F1	F2	F3	F4
F1	**15**	12	10	31
F2	17	**14**	19	35
F3	17	9	**20**	31
F4	16	16	18	**40**

Loss: 0.1397 | **Accuracy:** 0.5176 | **Başarı Yüzdesi:** 22%

	F1	F2	F3	F4
F1	**14**	15	26	17
F2	22	**12**	27	25
F3	18	19	**20**	26
F4	14	17	23	**25**