```
Alpha: 0.2027325540540821
Error: 0.4
Weights:
0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1
decision boundary: 3.75
Pred: 0.5|3.0|3.0|4.5|4.5|4.9|4.9|4.9|5.3|7.0
Targ: -1|-1|-1|1|1|1|1|1|-1|-1
  -----
Alpha: 0.4054651081081643
Error: 0.30769230769230776
Weights:
0.11538461538461539|0.11538461538461539|0.11538461538461539|
0.11538461538461539|0.11538461538461539|0.07692307692307694|
0.07692307692307694|0.11538461538461539|0.07692307692307694|
0.07692307692307694
decision boundary: 3.8
Pred: 0.5|0.5|3.0|3.0|3.0|4.6|4.9|4.9|5.2|5.3
Targ: -1|-1|-1|-1|1|1|1|-1|-1
_____
Alpha: 0.28589316177783886
Error: 0.3608247422680413
Weights:
0.13917525773195877 | 0.13917525773195877 | 0.13917525773195877 |
0.13917525773195877 | 0.13917525773195877 | 0.04123711340206187 |
0.04123711340206187 | 0.13917525773195877 | 0.04123711340206187 |
0.04123711340206187
decision boundary: 6.25
Pred: 0.5|0.5|4.6|4.6|4.9|5.5|5.5|5.5|7.0|7.0
Targ: -1|-1|1|1|1|1|1|-1|-1
Alpha: 0.5592192366838966
Error: 0.24630104557111862
Weights:
0.09321365160781221|0.09321365160781221|0.16512132570526733|
0.16512132570526733|0.16512132570526733|0.027618859735648073|
0.027618859735648073 | 0.16512132570526733 | 0.048924837246005146 |
0.048924837246005146
decision boundary: 2.5
Pred: 0.5|4.5|4.5|4.6|4.6|4.6|4.6|4.9|4.9|5.5
Targ: -1|1|1|1|1|1|1|1|1
Alpha: 1.3760214336769754
Error: 0.05997138032887399
0.11174183366762151|0.03651607887292906|0.19794267678264382|
```

```
0.19794267678264382 | 0.19794267678264382 | 0.01081957892531232 |
0.01081957892531232|0.19794267678264382|0.019166111239124674|
0.019166111239124674
decision boundary: 3.75
Pred: 0.5|3.0|4.5|4.6|4.6|4.9|4.9|4.9|4.9|5.5
Targ: -1|-1|1|1|1|1|1|1|1|1
Alpha: 1.5544472389880175
Error: 0.042741853779900925
Weights:
0.11838881667033026|0.038688244369299137|0.20971733238744217|
0.20971733238744217 | 0.20971733238744217 | 0.0007313212854178486 |
0.0007313212854178486|0.20971733238744217|0.0012954834198830457|
0.0012954834198830457
decision_boundary: 2.5
Pred: 0.5|4.5|4.5|4.6|4.6|4.6|4.9|4.9|5.5|5.5
Targ: -1|1|1|1|1|1|1|1|1
Alpha: 3.108894477976035
Error: 0.0019896816664205746
Weights:
0.12342883795644975|0.0018009815606966394|0.2186453700942824|
0.2186453700942824|0.2186453700942824|3.4043833506895555e-05|
3.4043833506895555e-05|0.2186453700942824|6.030621935507211e-05|
6.030621935507211e-05
decision boundary: 2.55
Pred: 0.5|4.6|4.6|4.6|4.9|4.9|4.9|5.5|5.5|5.5
Targ: -1|1|1|1|1|1|1|1|1
_____
Alpha: 0.4236489301936017
Error: 0.30000000000000004
Weights:
0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1|0.1
decision boundary: 5.050000000000001
Pred: 0.5|3.0|4.5|4.5|4.5|4.9|5.2|7.0|7.0|9.5
Targ: -1|-1|1|1|1|1|-1|-1|-1
Alpha: 0.8472978603872037
Error: 0.15517241379310345
0.05172413793103448|0.05172413793103448|0.12068965517241377|
0.12068965517241377 | 0.12068965517241377 | 0.12068965517241377 |
0.12068965517241377 | 0.05172413793103448 | 0.12068965517241377 |
0.12068965517241377
decision boundary: 5.050000000000001
Pred: 0.5|4.5|4.5|4.5|4.6|4.9|5.2|5.3|9.5|9.5
```

```
Targ: -1|1|1|1|1|1|-1|-1|-1
```

Alpha: 1.6945957207744071 Error: 0.03263497179693795

Weights:

0.010878323932312651|0.010878323932312651|0.1381950040290089|

0.1381950040290089|0.1381950040290089|0.1381950040290089|

0.1381950040290089|0.010878323932312651|0.1381950040290089|

0.1381950040290089

decision\_boundary: 5.1

Pred: 0.5|4.5|4.5|4.6|4.6|4.9|5.3|7.0|9.5|9.5

Targ: -1|1|1|1|1|1|-1|-1|-1

Test Data:

[1. 2. 3. 4. 5. 6. 7. 8. 9. 10.]

Test Predictions:

[-1 -1 1 1 1 1 1 1 1 1]