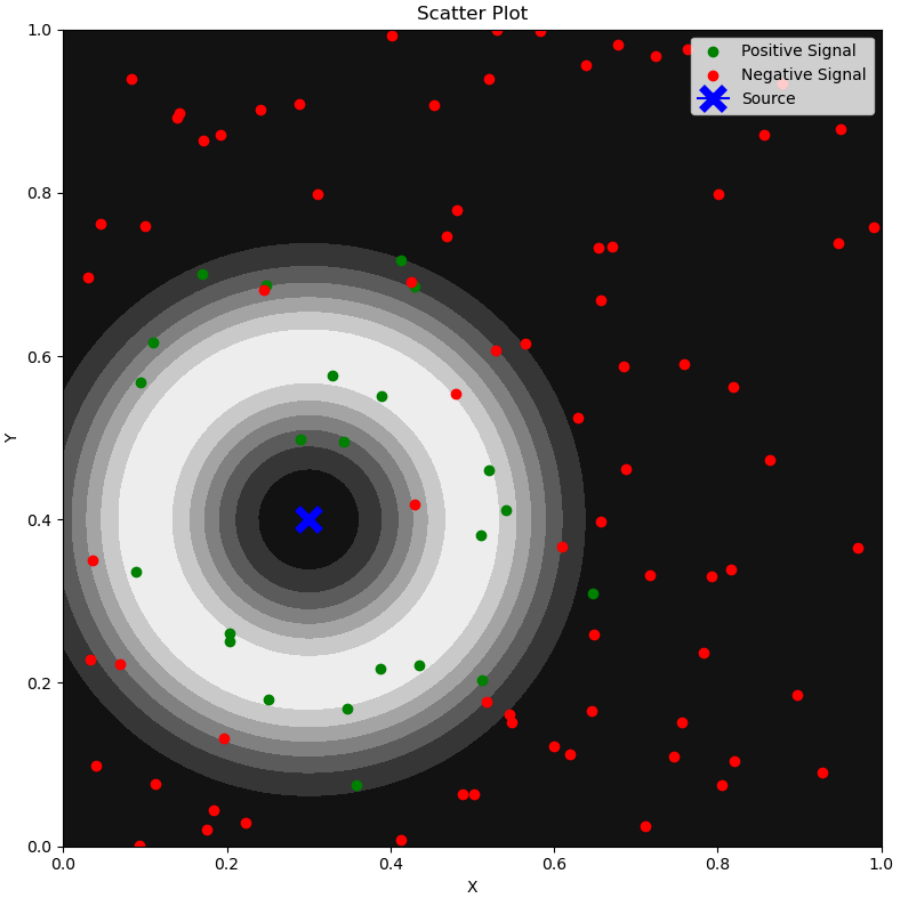
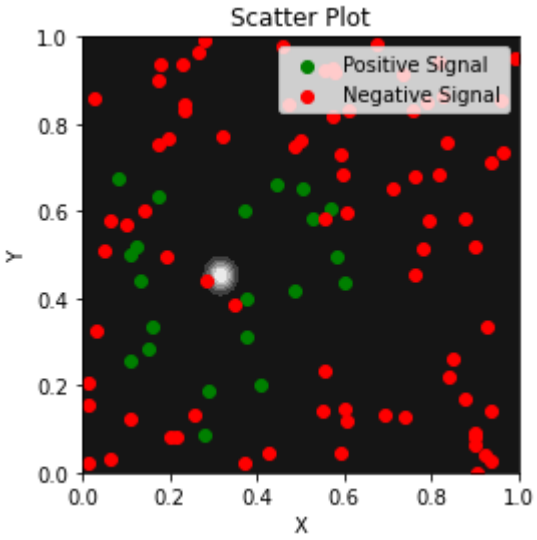
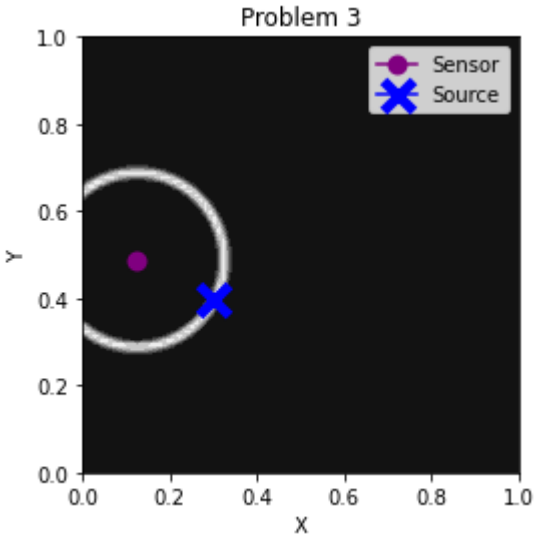
Problem 1:


Scatter Plot
Positive Signal
Negative Signal
Source
1.0
0.8
0.6
0.4
0.2
0.0
Y
0.0
0.2
0.4
0.6
0.8
1.0
X

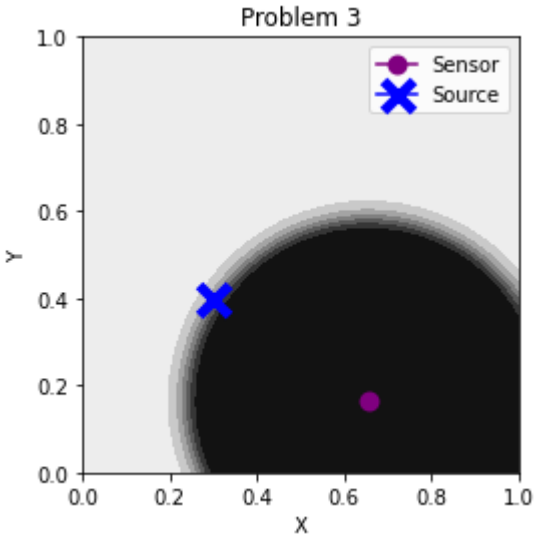
Problem 2:


Scatter Plot
Positive Signal
Negative Signal
1.0
0.8
0.6
0.4
0.2
0.0
Y
0.0
0.2
0.4
0.6
0.8
1.0
X

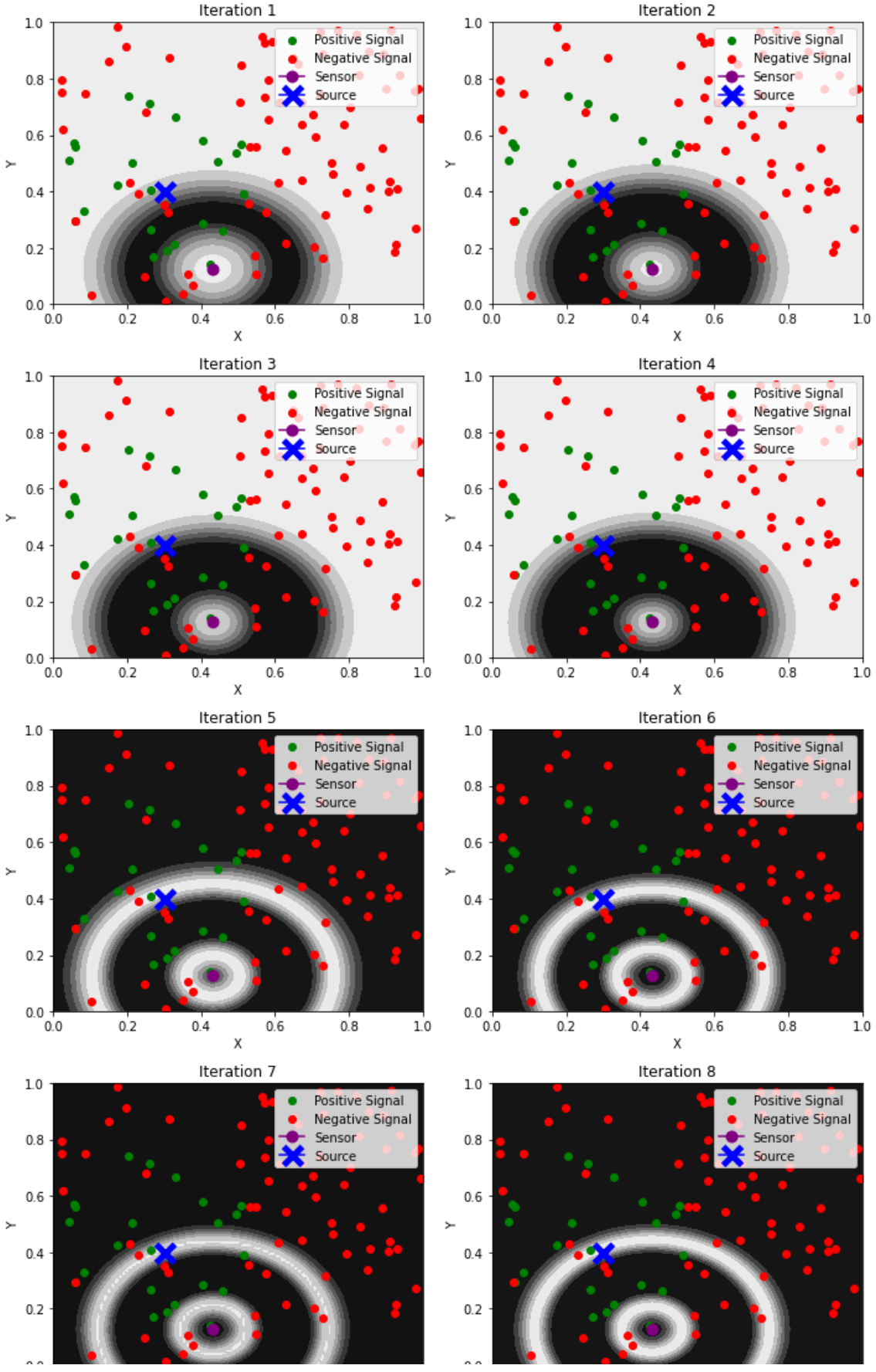
Problem 3a:

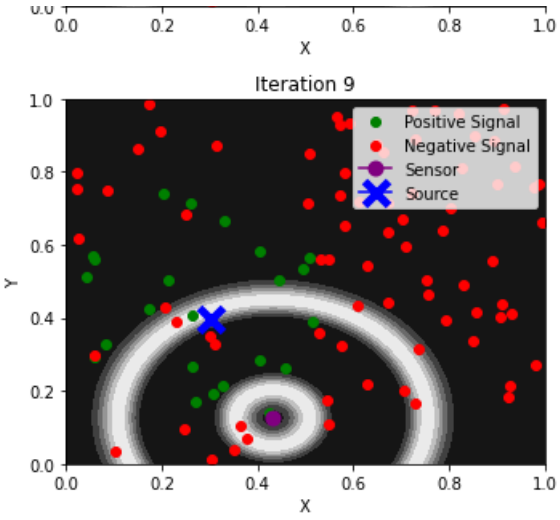


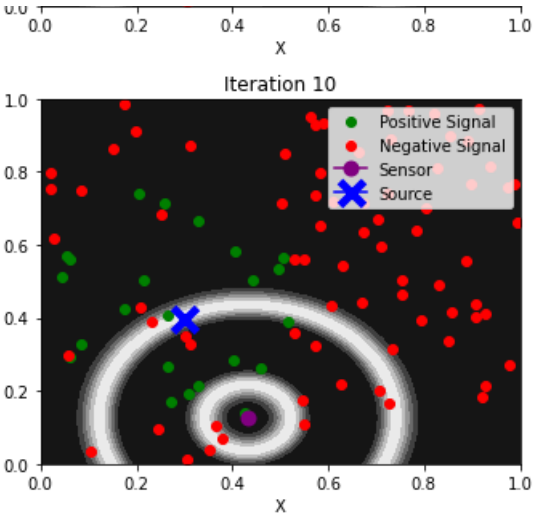
Problem 3b:



Problem 4:


Iteration 1
Iteration 2
Iteration 3
Iteration 4
Iteration 5
Iteration 6
Iteration 7
Iteration 8
Positive Signal
Negative Signal
Sensor
Source
X
Y


0.0
0.2
0.4
0.6
0.8
1.0
X


0.0
0.2
0.4
0.6
0.8
1.0
X

Iteration 9
Positive Signal
Negative Signal
Sensor
Source
Y
X
0.0
0.2
0.4
0.6
0.8
1.0

Iteration 10
Positive Signal
Negative Signal
Sensor
Source
Y
X
0.0
0.2
0.4
0.6
0.8
1.0

Problem 5: ![5](images/part5.png)