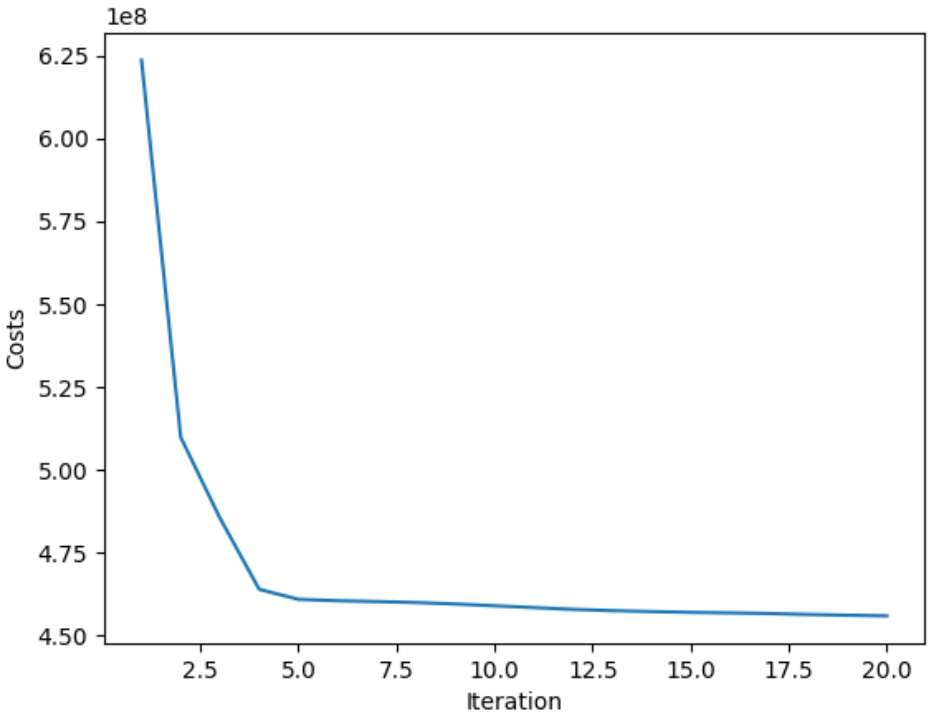
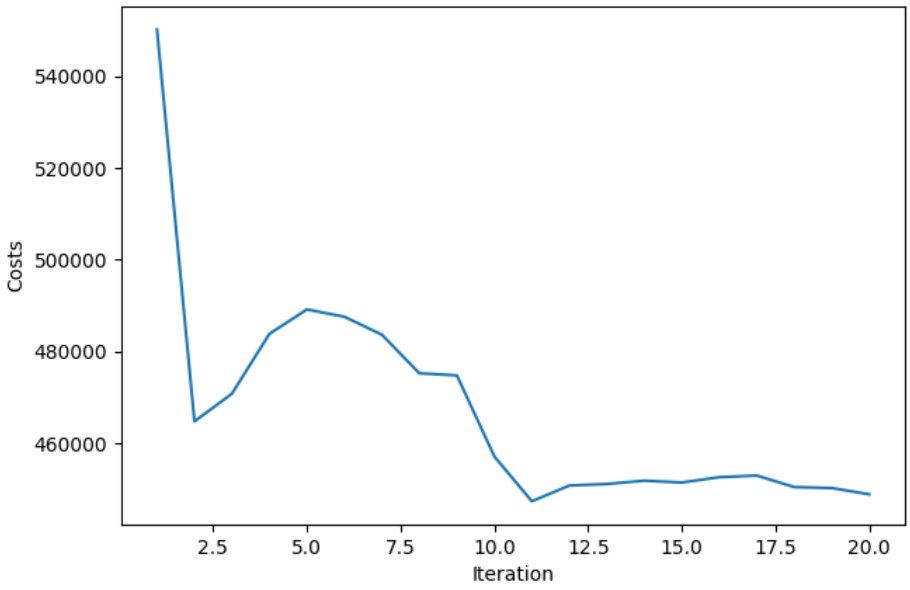
Jason Weng HW3

Question 1
Euclidian Costs:



Manhattan Costs:



Question 2

r=2, b=5

1-(1-[0.1]^2)^5 = 0.0490099501
1-(1-[0.2]^2)^5 = 0.1846273024
1-(1-[0.3]^2)^5 = 0.3759678549
1-(1-[0.4]^2)^5 = 0.5817880576
1-(1-[0.5]^2)^5 = 0.7626953125
1-(1-[0.6]^2)^5 = 0.8926258176
1-(1-[0.7]^2)^5 = 0.9654974749
1-(1-[0.8]^2)^5 = 0.9939533824
1-(1-[0.9]^2)^5 = 0.9997523901

r=6, b=15

1-(1-[0.1]^6)^15 = 0.00001499989
1-(1-[0.2]^6)^15 = 0.00095957003
1-(1-[0.3]^6)^15 = 0.01087937458
1-(1-[0.4]^6)^15 = 0.0597092789
1-(1-[0.5]^6)^15 = 0.21039728666
1-(1-[0.6]^6)^15 = 0.51163496309
1-(1-[0.7]^6)^15 = 0.84702490434
1-(1-[0.8]^6)^15 = 0.98953897602
1-(1-[0.9]^6)^15 = 0.99998847968

r=4, b=30

1-(1-[0.1]^4)^30 = 0.00299565405
1-(1-[0.2]^4)^30 = 0.04690285164
1-(1-[0.3]^4)^30 = 0.21650413664
1-(1-[0.4]^4)^30 = 0.54067693022
1-(1-[0.5]^4)^30 = 0.85574253638
1-(1-[0.6]^4)^30 = 0.98445586817
1-(1-[0.7]^4)^30 = 0.99973533693
1-(1-[0.8]^4)^30 = 0.99999986373
1-(1-[0.9]^4)^ 30 = 0.99700434594